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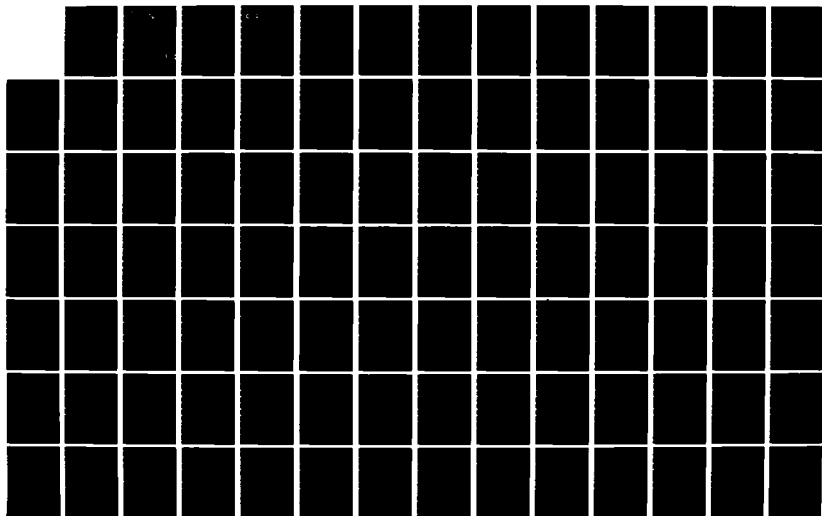
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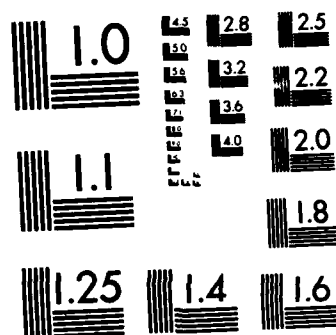
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AN INVESTIGATION OF THE PROCESS BY
WHICH AIR FORCE OFFICERS VIEW AND
EVALUATE THEIR PERCEIVED AVAILABILITY
OF JOB ALTERNATIVES

James Meola, Captain, USAF
Carrie L. Koechel, 1st Lieutenant, USAF

LSSR 35-83

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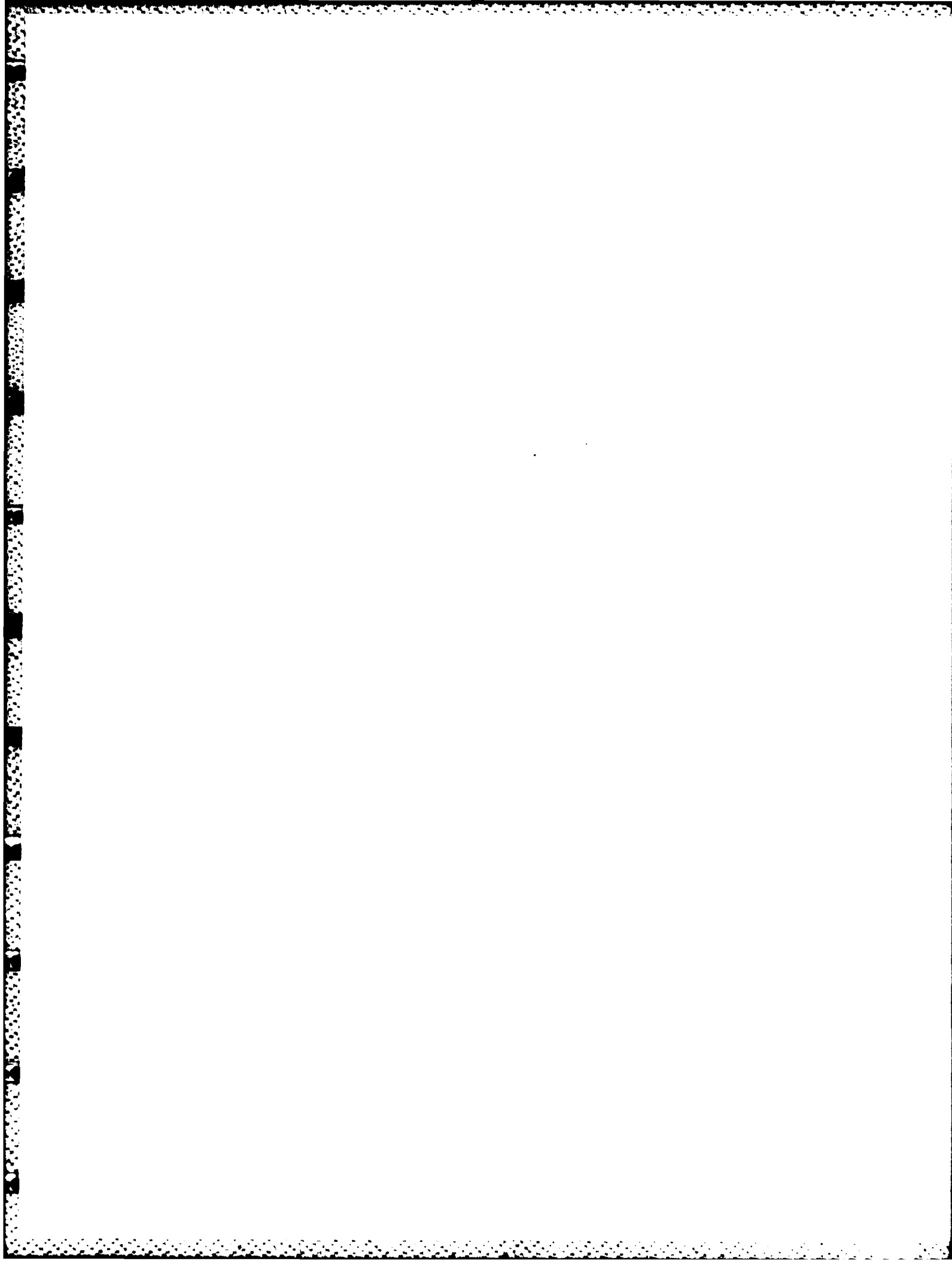
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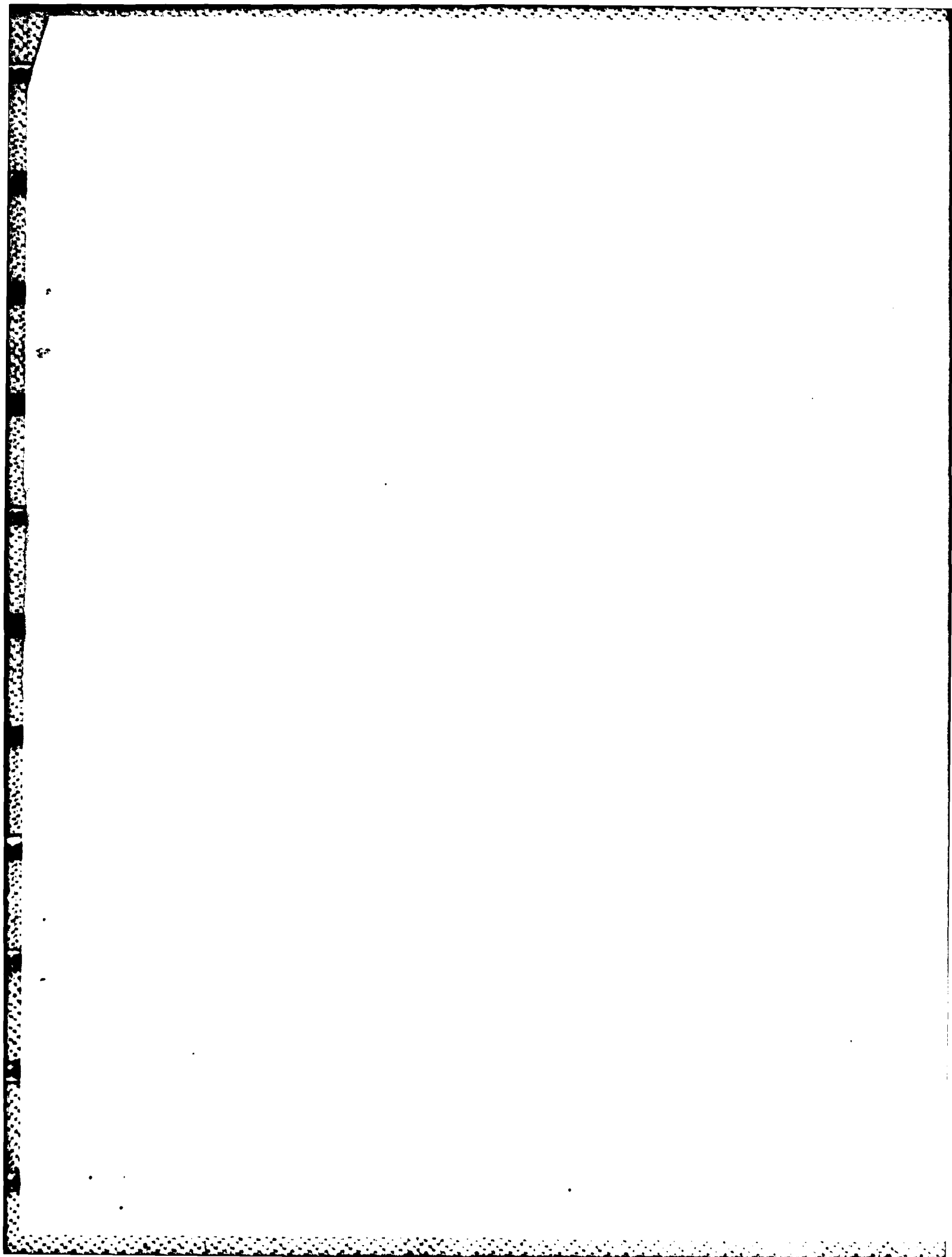
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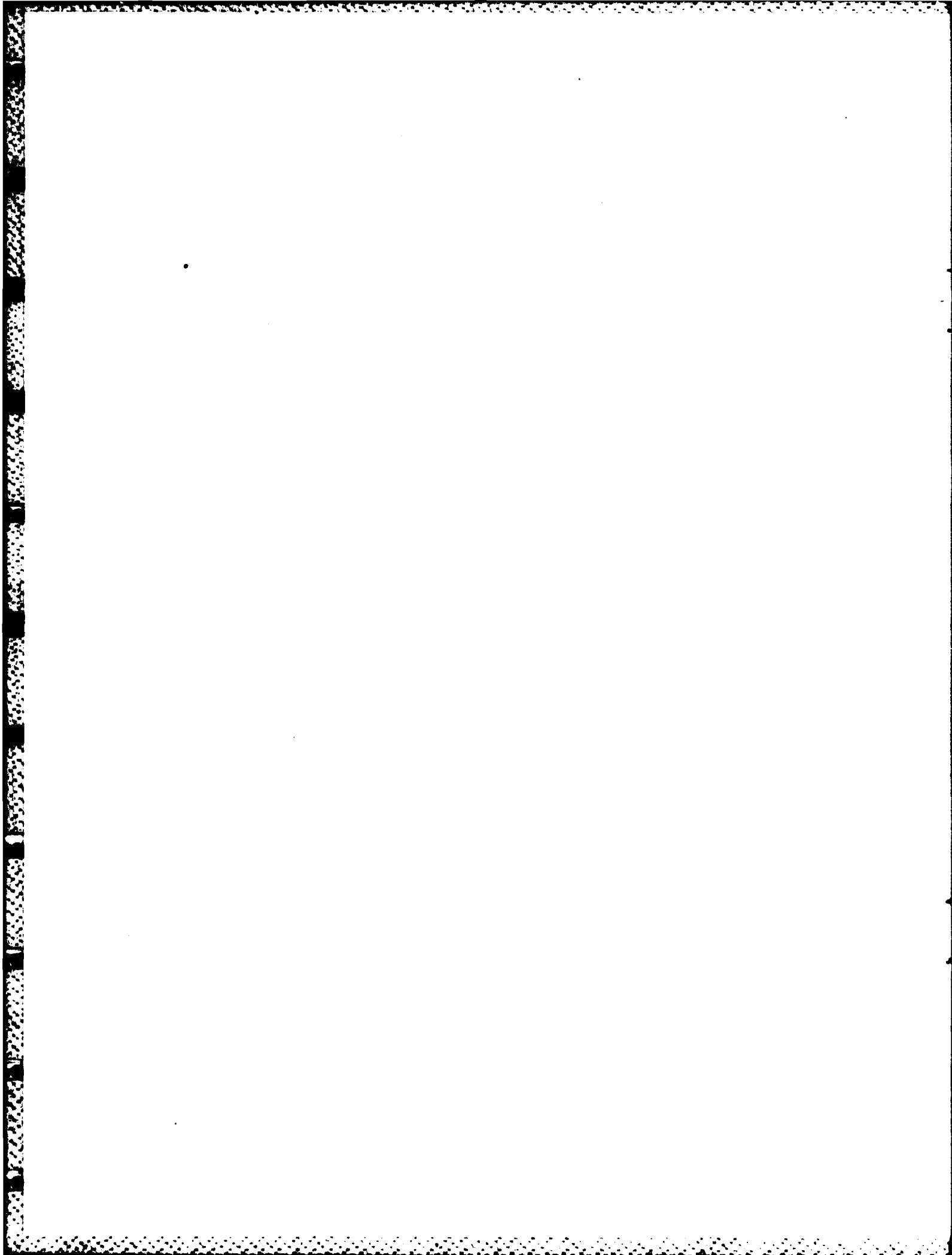
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Retention of United States Air Force (USAF) officers in engineering and scientific career fields has been and will continue to be a significant problem faced by the service. Competition for these personnel resources is projected to increase significantly through the 1990s. This thesis sought to determine how individuals perceive and evaluate their options for alternative employment in light of external economic conditions and job demand. Four occupational career areas (Engineering, Computer Science, Personnel, and Administration) were classified by high demand, and low or normal demand groups for study. Data collection was accomplished through the administration of an Air Force wide survey during the spring of 1983. Results indicated differing, although highly similar, models were in operation for the high, and low or normal demand groups. The three common predictors variables for intention to search and intention to remain were (1) intrinsic benefits--sense of accomplishment, (2) information search--frequency of looking at job recruiting information, and (3) time invested--willingness to leave the service given time already invested toward retirement. Limitations of these results are discussed. Recommendations for further research, use of these results, and contributions to formal turnover theory are also discussed.

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AN INVESTIGATION OF THE PROCESS BY WHICH
AIR FORCE OFFICERS VIEW AND EVALUATE THEIR
PERCEIVED AVAILABILITY OF JOB ALTERNATIVES

A Thesis

Presented to the Faculty of the School of Systems and Logistics
of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the Requirements for the
Degree of Master of Science in Logistics Management

By

James Meola, BS
Captain, USAF

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September 1983

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and

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MASTER OF SCIENCE IN LOGISTICS MANAGEMENT

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COMMITTEE CHAIRMAN

TABLE OF CONTENTS

	Page
LIST OF TABLES	v
LIST OF FIGURES	vii
Chapter	
I. INTRODUCTION	1
Literature Review	2
Definitions	3
Scope and Limitations	5
Problem Statement	25
Objectives of the Study	26
Research Questions	30
Scope and Limitations	30
II. METHOD	32
Sample	33
Measures	36
Procedure	45
Analyses	48
III. RESULTS	50
Research Question 1	50
Research Question 2	62

	Page
IV. DISCUSSION AND RECOMMENDATIONS	74
Recommendations for Action	83
Design Limitations	85
Recommendations for Further Research	86
APPENDIX A. DESCRIPTIVE STATISTICS	88
APPENDIX B. CORRELATION MATRICES	93
APPENDIX C. QUESTIONNAIRE	102
BIBLIOGRAPHY	105
REFERENCES CITED	106

LIST OF TABLES

Table	Page
1. Sample Population	33
2. Sample Population Size	34
3. Random Sampling by Total Years of Service	46
4. Response Rate by Subgroup	46
5. Descriptive Statistics for Overall Group	51
6. Descriptive Statistics for High Demand Group	52
7. Descriptive Statistics for Low Demand Group	53
8. Correlation Matrix for Overall Group	54
9. Correlation Matrix for High Demand Group	56
10. Correlation Matrix for Low Demand Group	58
11. Regression on Intent to Search with Antecedent Variables	61
12. Regression on Intent to Remain with Intervening Variables Controlling for Intent to Search.	61
13. Regression on Intent to Search with Antecedent Variables	64
14. T-Test for Difference of Group Means for Common Predictors of Intent to Search	65

Table		Page
15.	Regression on Intent to Search (Hierarchy) and Antecedent Variables (Stepwise Inclusion)	66
16.	Regression on Intent to Remain Adding Time Invested to the Model (Stepwise Inclusion) for Total Sample Subgroups	69
17.	Regression on Intent to Remain with Stepwise Inclusion of all Variables in the Model	71

LIST OF FIGURES

Figure	Page
1. March and Simon's Major Factors Affecting Perceived Desirability of Movement	7
2. March and Simon's Major Factors Affecting Perceived Ease of Movement	9
3. Price's Model of Turnover Determinants and Intervening Variables	11
4. The Causal Model of Turnover	14
5. Mobley's Intermediate Linkages Model	16
6. Path Model of U.S. Army Officer Turnover Intentions	19
7. An Expanded Model of the Employee Turnover Process	21
8. A Model of Voluntary Employee Turnover	23
9. Proposed Model of Perceived External Economic Conditions and Availability of Job Alternatives for Predicting Behavioral Intention to Remain in an Organization	27

CHAPTER I

INTRODUCTION

The Air Force is not unlike any business organization; their inability to retain skilled workers may be the most significant manpower problem they face. This appears especially true for certain "chronic shortage" and "high demand" occupations such as engineers and computer scientists. Evidence of this exists judging from articles such as "The Retention Nightmare--Services Struggling to Keep Skilled Specialists," and "Lack of Engineers Only the Tip of the Iceberg" (Air Force Times, 5 Jan 81; 1 Jun 81). Furthermore, the problem of shortages of engineers and scientists is acute enough for President Ronald Reagan to comment in his January 25th, 1983 State of the Union message to Congress (Reagan, 1983):

Our country has led the world in higher technology in the past due to the quality and resourcefulness of our technological base. . . . Opportunities and need will continue to exist for all jobs in these high technology areas. . . . We must graduate more engineers and scientists from our universities in order to fill the shortages . . . in order to maintain our [technological] edge.

Other supporting evidence is not difficult to find. For instance, the Bureau of Labor Statistics projects 27.7

percent more jobs for engineers through 1990 (Carey, 1981). They also list twenty of the most rapidly growing occupations of which computer technology jobs placed first, third, fourth, and sixth, with employment opportunity growth figures ranging between 73.6 percent and 147.6 percent. Mobley (1982), in his book Employee Turnover: Causes, Consequences, and Control, maintains:

In a free and competitive labor market, employees will periodically assess alternatives through highly-visible advertising, movement of acquaintances, and/or informal communication. Even satisfied employees expecting rewarding internal career mobility will periodically be attracted to alternatives. (p. 47)

Thus, the competition among employers to hire and keep personnel in these occupational classifications is likely to be fierce.

Literature Review

Overview

Employee turnover has been a major concern of practitioners and theorists since the turn of the century. The assumptions of these researchers are that reducing turnover, even by marginal amounts, can result in substantial savings to organizations (Price, 1977). Hence, the study of turnover is directed toward identifying its causes and correlates so that the organization can take positive

steps to prevent "good" employees from leaving (Dalton & Todor, 1982; Price, 1977; Staw, 1980).

Historically, causes and correlates of turnover have been studied from many different perspectives. A great deal of emphasis was initially placed on identifying the determinants of employee turnover. Research then began focusing on demographic variables and job attitudes as important predictors of the event. Simple correlations evolved into multivariate statistical analyses, and other factors, such as the importance of alternative job possibilities and behavioral intentions, were introduced. To date, a continuing concern in attempts to understand the turnover process is the relative lack of research emphasis on turnover as a process. The present study describes the process by which persons perceive their availability of alternatives. To accomplish this, the literature review concentrates on the development of conceptual models of the turnover process which support our investigation of perceptions of alternative job opportunities and their relationships to the surrogate measure of turnover used in this study, intent to remain/quit.

Definitions

Turnover is frequently categorized as voluntary and involuntary (Dalton & Todor, 1982). Voluntary turnovers

are those separations initiated by the individual. Involuntary turnovers are those initiated by the organization. Managers are primarily concerned with voluntary turnover, or uncontrollable separations (Price, 1977; Roseman, 1981).

A primary issue is the extent to which turnover is controllable. Retirement, illness, death, pregnancy, and reductions in staff because of economic conditions are uncontrollable factors that should be segregated from controllable 'quits' and 'dismissals'. Voluntary and involuntary turnover statistics should also be segregated. However, these often are not clearly differentiated [Roseman, 1981, p. 7].

Most available literature dealing with the determinants of turnover deals primarily with the determinants of voluntary turnover. Dalton, Todor, and Krackhardt (1982), in their article "Turnover Overstated: The Functional Taxonomy," classified voluntary turnover as "functional" or "dysfunctional" to an organization. Functional turnover is any type of separation of an employee who is viewed negatively by the organization. Conversely, dysfunctional turnover is any type of separation of an employee who is viewed positively by the organization. Traditionally, most of the turnover literature has assumed that turnover is predominately dysfunctional (Dalton & Todor, 1982; Mobley, 1982; Muchinsky & Tuttle, 1979; Roseman, 1981).

Scope and Limitations

There are several turnover models in existence today which seek to illustrate the major causes of employee turnover by viewing attrition as a psychological process (Mowday et al., 1982). Turnover models by the following authors will be examined: 1) March and Simon; 2) Price; 3) Mobley; 4) Bluedorn; and 5) Mowday, Porter, and Steers.

March and Simon's Turnover Model

March and Simon first presented their turnover model in 1958. The key aspect to their model was an employee's decision to participate. This decision is based on an employee's voluntary acceptance of the employment contract. According to March and Simon (1958),

An employee will be willing to enter into an employment contract only if it does not matter to him 'very much' what activities the organization will instruct him to perform, or if he is compensated in some way for the possibility that the organization will impose unpleasant activities on him. (p. 91)

March and Simon proposed one of the first systematically integrated models of the turnover process. The model was based on the theory of organizational equilibrium such that an "inducements-contributions balance" must be maintained in the organization. This implies that the benefits derived from contributions to the organization

decrease the propensity of an employee to leave that organization (March & Simon, 1958).

The model depicts this balance through two distinct, but interrelated components that make up the decision to participate in an organization. These two components are:

1. Perceived desirability of movement from the organization, and
2. Perceived ease of movement from the organization (March & Simon, 1958; Mobley, 1982; Jackofsky & Peters, 1983).

March and Simon present the turnover decision as a function of the individual wanting to both leave the organization, and being able to do so. The literature on the factors associated with employee motivation to leave an organization suggested that the primary factors influencing this motivation are employee satisfaction and the perceived possibility of intra-organizational transfer. The greater the individuals' satisfaction with the job, the less the perceived desirability of movement (March & Simon, 1958; Mobley, 1982). Job satisfaction is viewed as the sum of an individual's met expectations on the job. The more an individual's expectations are met the greater the satisfaction.

March and Simon's (1958) model is presented in Figure 1. The model suggests that job dissatisfaction is a sufficient, yet not necessary condition for turnover

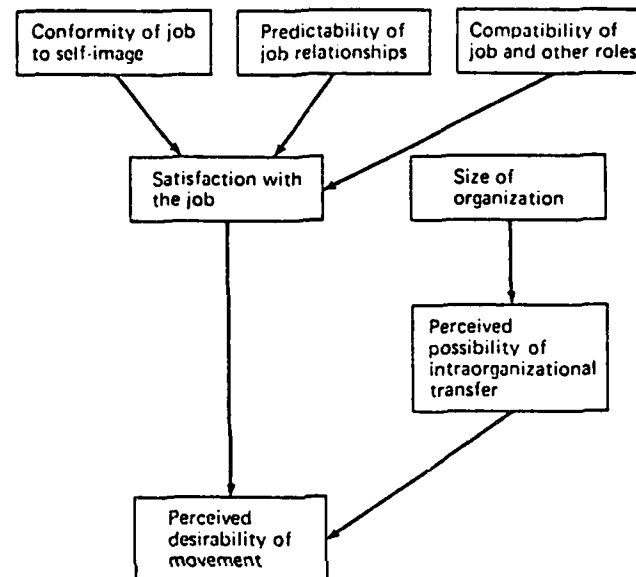


Figure 1. March and Simon's Major Factors Affecting Perceived Desirability of Movement.

Source: March, J. G., & H. A. Simon. Organizations. New York: Wiley, 1958.

(Mobley, 1982). Pettman (1973) found support for this contention.

The second aspect of March and Simon's turnover model examines an employee's perceived ease of movement from the organization. They presented one of the first integrations of economic-labor market and behavioral factors with a turnover theory context (Figure 2). This model illustrates the major factors affecting perceived ease of movement.

For an individual, ease of movement depends on the availability of jobs for which he is qualified (and willing to accept) and their visibility to him (March & Simon, 1958, p. 100).

Under nearly all conditions the most accurate single predictor of labor turnover is the state of the economy. . . . When jobs are plentiful, voluntary movement is high; when jobs are scarce, voluntary turnover is small [March & Simon, 1958, p. 100].

Accordingly, the greater the number of perceived extra-organizational alternatives, the greater the perceived ease of movement.

The March and Simon model is considered to be a general model of employee withdrawal. Most reviews of the March and Simon model, therefore, have concentrated on the examination of the common correlates between absenteeism and turnover behavior. Review articles examining the common correlates of absenteeism and turnover have

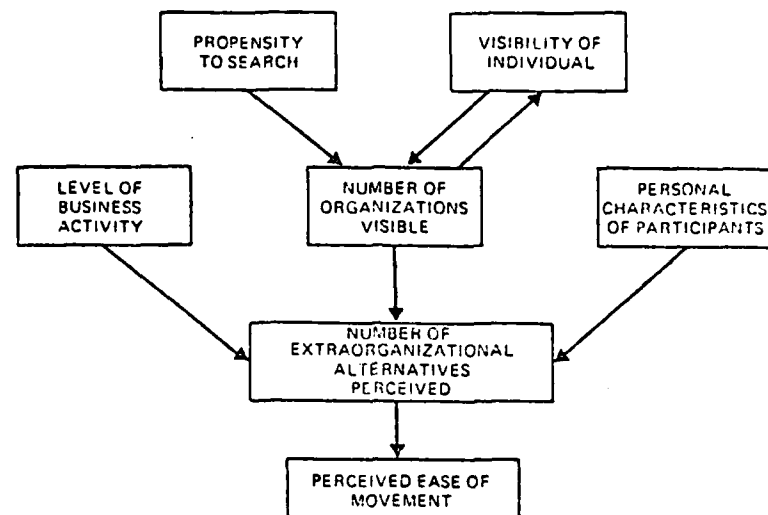


Figure 2. March and Simon's Major Factors Affecting Perceived Ease of Movement.

Source: March, J. G., & H. A. Simon. Organizations. New York: Wiley, 1958.

generally found little support to suggest much equivalence in the two behaviors (Porter & Steers, 1973). However, their model has contributed to the study of turnover by focusing attention on the need to assess both economic-labor market and behavioral variables in studying the employee turnover process (Mobley, 1982).

Price's Turnover Model

In 1977, Price published an extensive review of the major determinants of turnover. He also presented a model linking major determinants and intervening variables to turnover behavior.

Price defines the primary antecedents of turnover as: 1) pay levels; 2) integration (extent of participation in primary relationships); 3) instrumental communication (directly related to role performance); 4) formal communication; and (5) centralization (degree to which power is localized) (Mobley, 1982; Price, 1979).

Price's 1977 model, illustrated in Figure 3, suggests that satisfaction and opportunity are the intervening variables between the contextual causes of turnover and the turnover act itself.

Satisfaction is defined as the degree to which members have a positive attitudinal orientation toward membership in the organization. Opportunity is the availability of alternative roles in the environment [Price, 1977; Mobley, 1982].

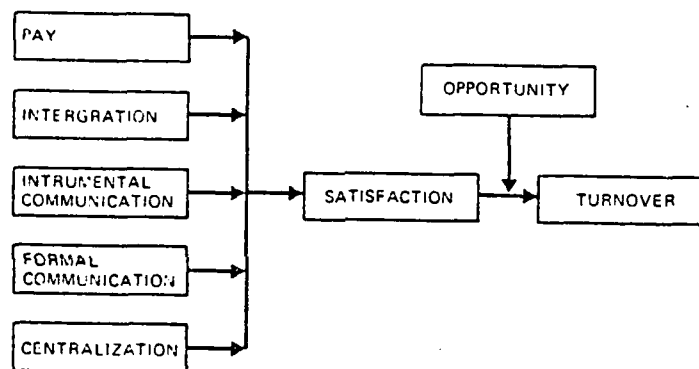


Figure 3. Price's Model of Turnover Determinants and Intervening Variables.

Source: Price, J. C. The Study of Turnover.
Ames IO: The Iowa State University Press, 1977.

Price's hypothesis is that "dissatisfaction results in turnover only when opportunity is relatively high." Opportunity is defined as "the availability of alternative jobs in the organization's environment" (Price, 1977, p. 81). According to the model, the greater the individual's job alternatives, the greater the propensity for turnover to occur for that individual.

The model makes two assumptions using opportunity as a variable. It is assumed that members of the organization have the knowledge about the opportunities available to them, and have the freedom to enter and leave different organizations.

Bluedorn (1980) reviewed the hypothesized interaction between satisfaction and opportunity. He based his conclusions on five empirical tests of Price's model, and did not find support for the treatment of opportunity as an intervening variable between satisfaction and turnover. Instead, he found support for the treatment of opportunity as a predictor of satisfaction ($r = .63$, $p < .05$). Martin (1979) also tested Price's model. He used data obtained from 250 workers involved in the marketing of educational programs and services. Partial support was obtained for Price's model. Martin proposed a model designed to predict turnover intentions and did not directly deal with turnover itself. The model assumed that intentions are the most immediate precursors of an act. The model is very similar

to Prices's. Analysis of Martin's model showed that satisfaction was the most important determinant of intention to quit ($r = -.37$, $p < .01$).

As a result of research conducted by Porter, Mobley, and their colleagues, Price and Mueller (1981) presented their "Causal Model of Turnover." The research by Porter et al. (Porter, Steers, Mowday & Boulian, 1974; Steers, 1977; Porter, Crampon & Smith, 1976; Koch & Steers, 1977) suggested that intent to stay is viewed as one dimension of organizational "commitment." Commitment is defined as the relative strength of an individual's identification with and involvement in a particular organization. Moreover, Mobley et al. conclude from their turnover literature review that commitment is significantly related to turnover (Mobley, 1977; Mobley, Griffith, Hand & Meglino, 1979). Correlational results were reported in earlier studies by Porter et al. (1976) for a sample of thirty-two management trainees ($r = .41$, $p < .05$) to also give support for the relationship between organizational commitment and turnover. Therefore, Price and Mueller suggest in their revised model that intent to stay is the intervening link between job satisfaction and turnover, rather than opportunity, as their first model suggests. As shown in Figure 4 of The Causal Model of Turnover, opportunity is treated as an independent variable in the turnover act.

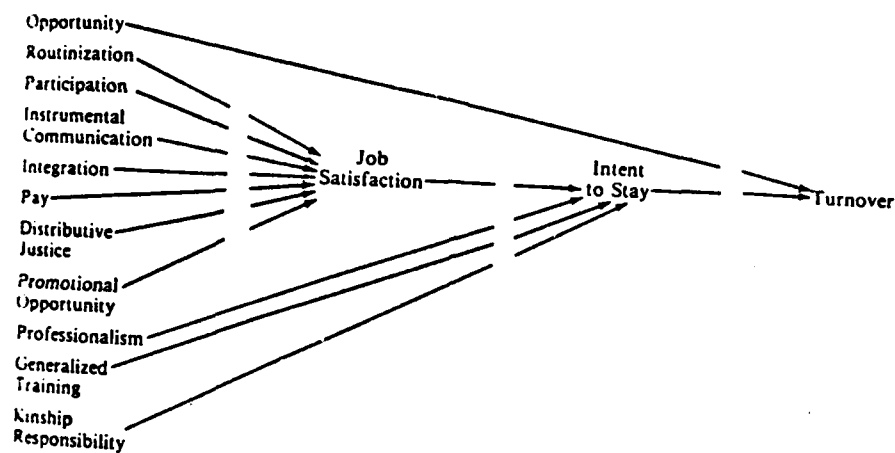


Figure 4. The Causal Model of Turnover.

Source: Price, J. L., & C. W. Mueller. "A Causal Model of Turnover for Nurses" (Academy of Management Journal, Vol. 24, No. 3), p. 547.

Price and Mueller's (1981) turnover model has received mixed support. Intent to stay, a dimension of commitment, was found to have the largest total impact on turnover ($r = .40$, $p < .01$). Therefore, job satisfaction which is proposed by Price and Mueller as an important intervening variable, was found to have no significant net influence on turnover ($r = .12$, $p < .01$). This supports Porter's contention that commitment is more important than job satisfaction. Opportunity, however, was the second most important determinant of turnover ($r = .19$, $p < .01$), and thus supports arguments for moving beyond the job satisfaction-turnover relationships that have previously been stressed in the literature (Price, 1977; Mobley, 1982).

Mobley's Turnover Model

Mobley (1982) was one of the first researchers to argue for the need to "move beyond simple replication of the satisfaction-turnover relationship toward larger scale research on the cognitive and behavioral processes leading to turnover" (p. 122).

Mobley (1977) presented a model of the turnover decision process which identified possible intermediate linkages between the satisfaction-turnover relationship (see Figure 5). Mobley proposed that several intermediate steps take place between the experience of job dissatisfaction and a decision to quit. The model focused on the

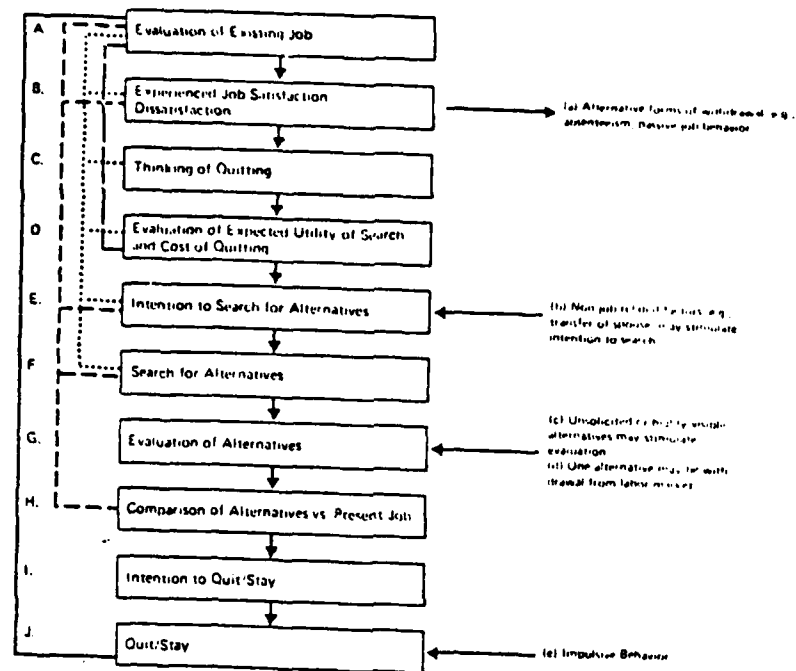


Figure 5. Mobley's Intermediate Linkages Model.

Source: Mobley, W. H. "Intermediate Linkages in the Relationship Between Job Satisfaction and Employee Turnover" (Journal of Applied Psychology, Vol. 62, 1977), p. 238.

premise that dissatisfaction promotes thinking of quitting, search for and evaluation of alternatives, intentions to quit, and finally, turnover behavior (Mobley, 1977).

A central point of Mobley's model is that the behavioral intention to leave an organization represents a more important determinant of turnover, than does employee job satisfaction ($r = .49$, $p < .01$). Job dissatisfaction indirectly leads to turnover, "but does so conditionally on favorable search utility, successful search, attractive work alternatives, and action toward resignation" (Miller, Katerberg & Hulin, 1979, p. 510).

Mobley introduced the concept of searching for alternate job opportunities, a process which leads to an employee's intention to quit or stay. The model, however, did not address individual differences in the withdrawal process, the degree to which the process is a conscious decision, and the degree to which the "act of quitting is impulsive rather than based on a subjectively rational decision process" (Mobley, 1977, p. 239). Mobley, Horner, and Hollingsworth (1978) conducted a study on 203 hospital employees and found support for Mobley's model. Expectancy of finding an acceptable alternative significantly correlated with intention to quit ($r = .15$, $p < .05$), and intention to search correlated with turnover ($r = .29$, $p < .01$).

Bluedorn's Turnover Model

Borrowing heavily from the work of March and Simon (1958), and Price (1977), Bluedorn (1979) presented the development of a unique model and its empirical evaluation. The model was unique in that it proposed a causal model of turnover for military organizations. The model, as shown in Figure 6, includes structural variables (organizational influence), environmental variable, as predictors of turnover, and a social psychological variable (job satisfaction). He tested the model using data from a large stratified random sample of U.S. Army officers. The results indicate that environmental pull (available alternatives) correlated significantly to job satisfaction ($r = -.44$, $p < .01$) which was significantly related to turnover intentions ($r = -.41$, $p < .01$).

These results give support to Mobley's (1977) suggestion that leaving intentions intervene between satisfaction and turnover. Bluedorn concludes that the interaction proposed by Price, and March and Simon, occurs between the attraction of external factors in the environment and leaving intentions rather than between external factors in the environment and satisfaction.

Expanded Mobley et al. Model

Mobley, Griffith, Hand, and Meglino (1979) expanded on Mobley's original model. "This model incorporates

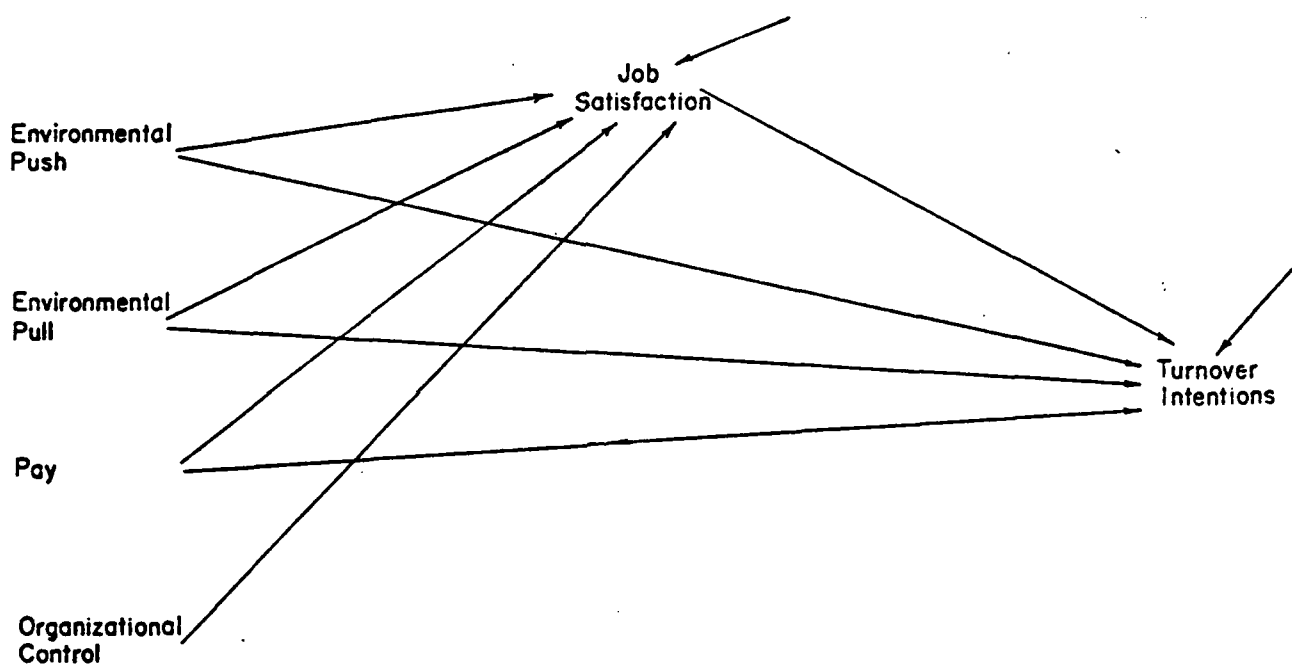


Figure 6. Path Model of U.S. Army Officer Turnover Intentions.

Source: Bluedorn, A. C. "Structure, Environment, and Satisfaction: Toward a Causal Model of Turnover from Military Organizations" (Journal of Political and Military Sociology, No. 2, Fall 1979), p. 195.

elements of the preceding models and attempts to capture the overall complexity of the turnover process" (Mobley, 1982, p. 125).

The conceptual model was presented suggesting the need to distinguish between satisfaction (in the present) and attraction/expected utility (in the future) for both the present job and alternatives in the work environment. The model, as shown in Figure 7, suggests that there is a "linking mechanism" that includes the individual's perceptions and evaluation of available alternatives relative to the present position. Satisfaction is viewed as a function of what the employee perceives his present job and future jobs to hold.

The expected utility of external alternative jobs is suggested as one of the major determinants of turnover. The expected utility is the result of the individual's expectation of finding an attractive alternative job external to the present organization.

The model presents several possible relationships dealing with an individual's expectations, intentions, and turnover behavior. Conceptually, the perception and evaluation of alternatives seems to be a crucial variable in the individual turnover process (Mobley et al., 1979). Mobley et al. suggest future conceptual and empirical work be accomplished assessing the adequacy with which these

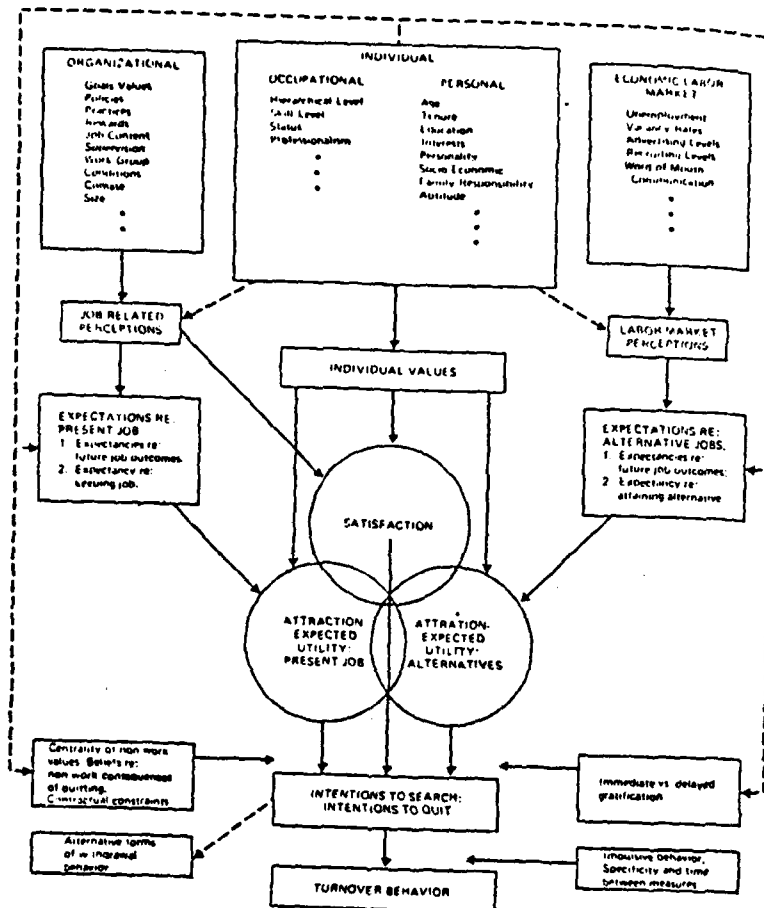


Figure 7. An Expanded Model of the Employee Turnover Process.

Source: Mobley, W. H., R. W. Griffith, H. H. Hand, & B. M. Meglino. "Review and Conceptual Analysis of the Employee Turnover Process" (Psychological Bulletin, Vol. 86, 1979), p. 517.

complex relationships are represented. Presently, the model remains untested.

Steers and Mowday's Turnover Model

Building upon earlier theoretical and empirical work on turnover, Steers and Mowday (1981) proposed that it is possible to construct a largely cognitive model of employee turnover that focuses on the processes leading to the decision to participate in an organization or to withdraw (turnover). Their model is constructed in three sequential parts: (1) job expectations and job attitudes; (2) job attitudes and intent to leave; and (3) intent to leave, available alternatives, and actual turnover. The model is shown in Figure 8.

Many aspects of their model have appeared earlier, other aspects are unique. To begin with, the role of available information about the prospective job and organization is explicitly recognized. Second, job performance level as a factor in affective responses to the job is also noted. Third, like the Mobley et al. (1979) model, several attitudes are considered as they relate to turnover. Also, recognition is given to the fact that when an employee is dissatisfied, he or she may engage in attempts to change the situation or work environment prior to deciding on voluntary termination of employment.

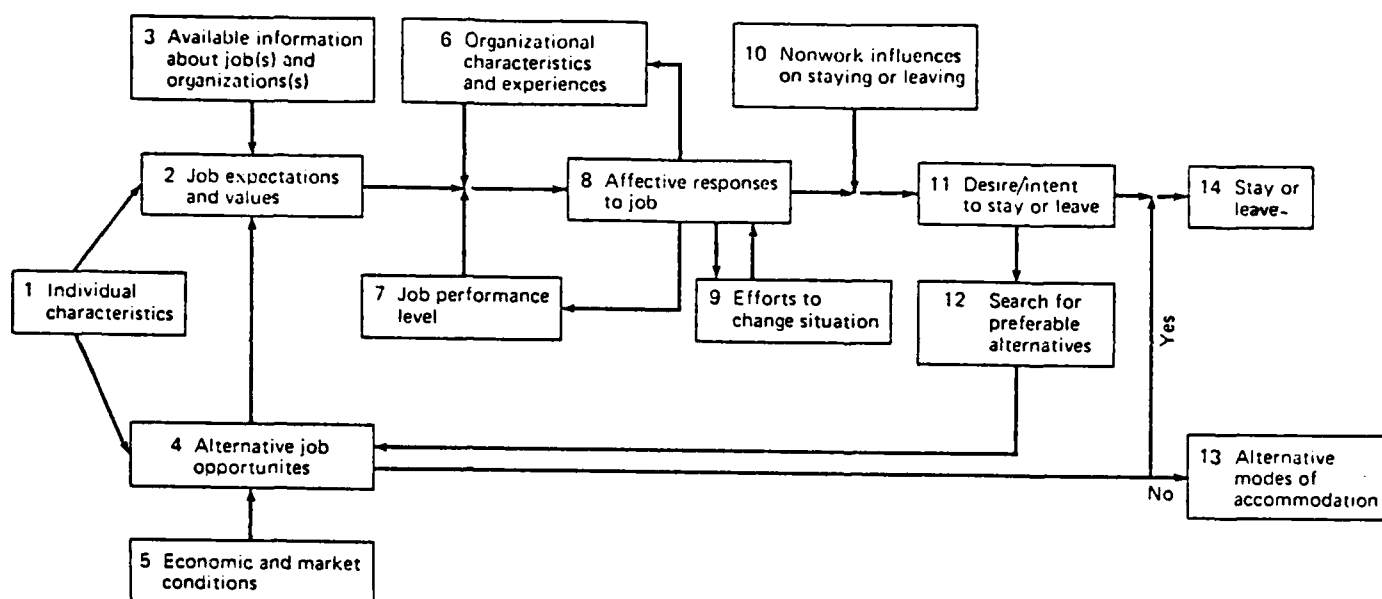


Figure 8. A Model of Voluntary Employee Turnover.

Source: Mowday, R. T., L. W. Porter, & R. M. Steers, The Psychology of Commitment, Absenteeism, and Turnover. New York: Academic Press, 1982.

The Steers and Mowday model, as well as others, suggest or identify several new avenues for future research on the turnover decision that should aid in understanding the process. One of these areas is the topic of our research effort--an investigation of the process by which Air Force officers view and evaluate their perceived availability of job alternatives.

Intention-Turnover Link

Although behavioral intentions have appeared in the turnover literature under a variety of terms, operational definitions of behavioral intentions share a common theme. Mobley defined this behavior as "withdrawal cognitions" (intention to quit, intention to search, thinking of quitting) (Miller et al., 1979, p. 510). Also, Kraut has surmised that "the best predictor of turnover can come from the employee's direct estimate of his future tenure" (Kraut, 1975, p. 235). Furthermore, an examination of the turnover process models indicate that intention to search for an alternate job is a well supported link to the turnover act. More recently, studies (Mobley, 1978, 1981; Miller et al., 1979; Steel & Ovalle, 1983) have advanced the proposition that behavioral intentions may also be used as a surrogate measure of the turnover act.

According to the research conducted by Steel and Ovalle (1983),

Implicit in much of the recent research on turn- over intent is the belief that intent represents the single best predictor of turnover. . . . Turn- over intentions have been integrated with models designed to summarize the turnover process. (p. 3)

Mobley (1978) found that intention to quit was the strongest and most consistent predictor of turnover ($r = .49$, $p < .01$). Miller et al. (1979) also found strong support for this contention using a population of National Guard members ($r = .71$, $p < .01$).

Based on the strong relationships reported by Mobley (1978); Miller et al. (1979); and Steel and Ovalle (1983), this research assumes that intention to search for alternative jobs can be used as a surrogate measure for the turnover act.

Problem Statement

It is necessary to identify those factors which influence perceptions of availability of alternatives for the high-skilled occupations of computer scientists and engineers within the Air Force. This information may be useful in predicting behavioral intentions to leave the Air Force, and also help to determine if certain perceived "civilian" occupational opportunities are significant in predicting intent to leave the Air Force by highly-skilled Air Force members.

Objectives of the Study

This study is aimed at identifying how persons perceive their alternative job opportunities based on several demographic variables, their intent to search and intent to remain in the organization, and their perceptions of external economic conditions. We will attempt to determine if these perceived alternative opportunities influence a person's intention to remain in the Air Force.

Model Development

Thus far, this literature review has followed the development of significant turnover research looking at determinants, the opportunity for alternatives, and the notion of using intent to remain as a surrogate measure of the turnover act. From this review of the literature, we have constructed a model which we feel pieces together the process by which an individual evaluates his/her alternative job opportunities and forms the intention to quit or remain in an organization (Figure 9). The model is constructed in three phases: The first phase is the individual's environment in the job situation. The second phase represents the individual's intent to initiate a search -- "Intent to Search I." And the third phase is what we call "Intent to Search II," which eventually leads to the individual forming the intent to quit or remain.

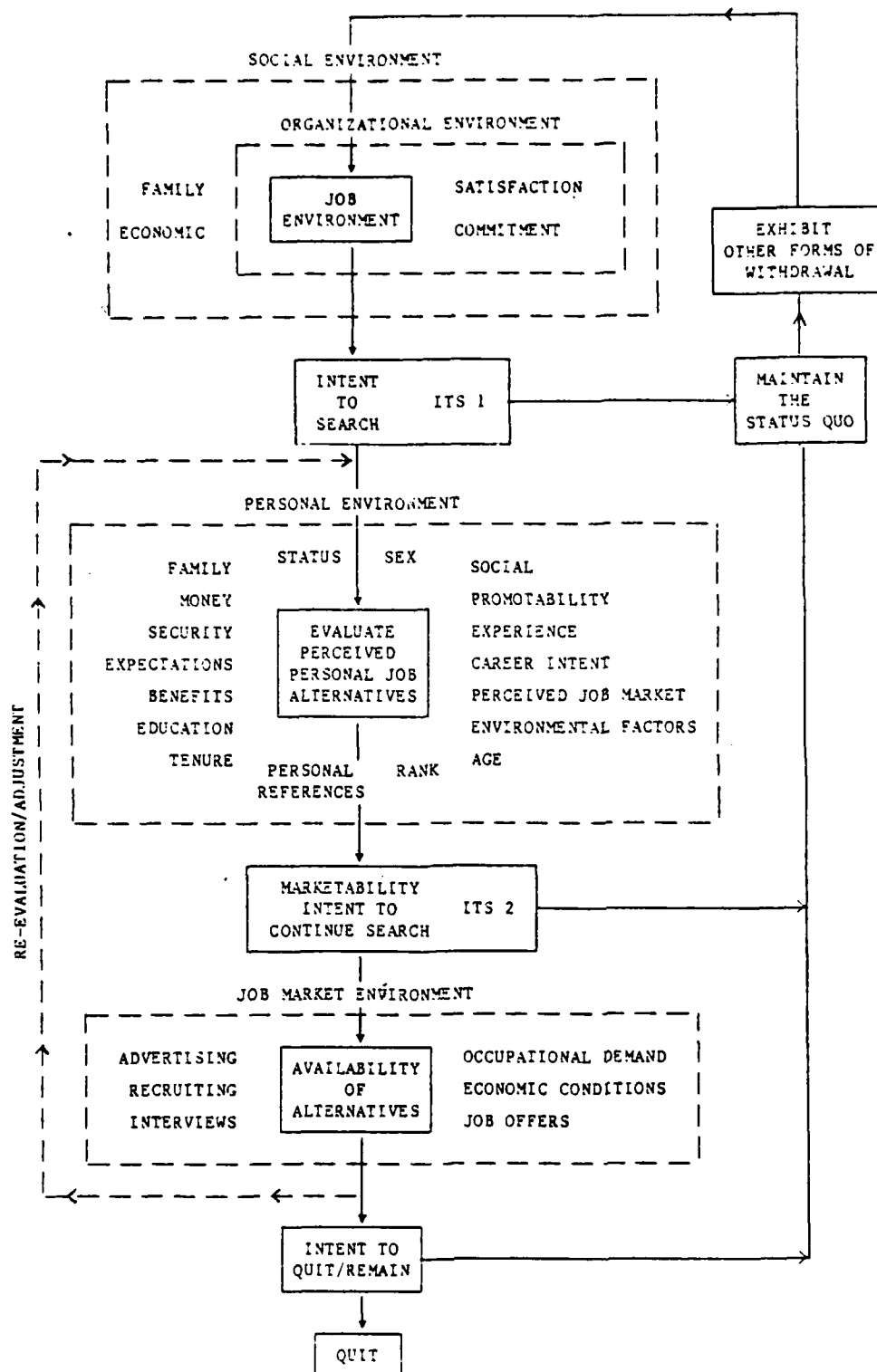


Figure 9. Proposed Model of Perceived External Economic Conditions and Availability of Job Alternatives for Predicting Behavioral Intention to Remain in an Organization.

First we view an individual as operating in a job environment surrounded by the larger organizational environment which interacts with the individual's social environment. Factors relating to satisfaction, commitment, economic conditions, as well as family relationships, all permeate the boundaries of the individual environment. These factors alone or in combination may serve to act as satisfiers or dissatisfiers for the individual. While an individual believes he or she is satisfied, the motives for intentions to search are dormant and the individual is content to maintain the "status quo." However, as an individual becomes dissatisfied with any aspect of, or in, his/her environment, the individual is being stimulated to initiate a search to remove or to quell the dissatisfaction they are feeling. This dissatisfaction triggers the individual to search within his/her personal environment and to evaluate perceived personal job alternatives.

We call the result of this search an individual's marketability factor. To arrive at this perception, individuals consider such things as their age, sex, family and the amount of risk they are willing to assume. Their education, experience, tenure in the organization, career intentions, expectations of the job and the organization, their wages, benefits, and sense of security that membership in the organization provide are all weighed and balanced in some individual way. A negative perception

of marketability may lead the individual to abandon the search and to return to the status quo or to induce the individual to exhibit some other form of withdrawal behavior. However, if the result of this evaluation is a positive perception of marketability then the individual has reinforced his/her intention and continues the search for alternatives in the job market environment.

As the individual becomes cognizant of the job market environment he/she becomes "tuned in" and thus susceptible to job advertising, recruiting, occupational demand, and the economic conditions of his/her particular occupation. The individual may even seek interviews and evaluate job offers (overtly or covertly) which more clearly define the scope of available alternatives. The result of this search is the formulation of an individual's intent to quit or remain. There are three possible outcomes from this search. The individual may decide to quit the organization, to abandon the search and remain in the organization with possible displays of other forms of withdrawal behavior, or the individual, based on the feedback received from the search, may reevaluate or adjust his/her expectations and renew his/her attempt to initiate the search for personal job alternatives with differing expectations.

Research Questions

Based upon the conceptualized model and through the use of an Air Force-wide survey, this study will attempt to answer the following:

1. How much influence do (a) perceived availability of alternative jobs, and (b) perceived external economic conditions have in an individual's formulation of intent to search for alternative jobs, and are these perceptions significant predictors of behavioral intentions to remain in, or quit an organization?
2. Are there significant differences in the perceptions of alternatives held by individuals in different Air Force occupations?
3. Can we clarify the role of perceived alternatives in formal turnover theory?

Scope and Limitations

The scope of this research, as defined within the objectives stated, is limited to the administration and analysis of a survey of Air Force Officers in five Air Force Occupational Skills. Air Force Specialty Codes 28XX (Engineering), 27XX (Program Manager), and 51XX (Computer Technology) were selected due to their state of "chronic shortages" and "high demand," both in the Air Force and in civilian employment. Air Force Specialty Codes 70XX

(Administration) and 73XX (Personnel) were selected as comparison occupational classifications. Demand in these fields has traditionally been smaller.

CHAPTER II

METHOD

Historically, retention studies in the Air Force have concentrated on looking for demographic correlates and job attitudes which would predict why persons are staying in or leaving the service. Factors such as job satisfaction, organization commitment, age, tenure, and others have influenced many Air Force policies aimed at improving the quality of life and attractiveness of the Air Force. However, previous research has not been able to explain why seemingly dissatisfied personnel remain in the service and, more importantly, why seemingly satisfied, highly productive personnel decide to leave.

This chapter details the development of the survey instrument, selection procedures for the sample population, and discusses the statistical procedures used to attempt to assess how perceived availability of alternative job opportunities influence a person's intention to remain in, or quit the Air Force.

Sample

Description of the population

The parent population consists of 12,923 Air Force Officers in five Air Force Specialty Codes (AFSCs) with fifteen years of service or less total active duty service time. The AFSC's and total populations in each are shown in Table 1.

Table 1

Sample Population

<u>AFSC</u>	<u>Description</u>	<u>Population Size</u>
27XX	Program Manager	2,054
28XX	Engineering	4,725
51XX	Computer Technology	2,908
70XX	Administration	1,621
73XX	Personnel	1,615

Note: Figures provided by MPC/ROS2
(current as of 31 Dec 1982).

Sampling Plan

In order to obtain a desired statistical confidence level of 90 percent, the size of the sample population was computed from the following formula:

$$n = \frac{N (Z^2) * P (1-P)}{(N-1) (d^2) + (Z)^2 * P (1-P)}$$

where:

n = sample size
N = population size
P = maximum sample size factor (.50)
d = desired tolerance
Z = factor of assurance (.10)
for 90% confidence level

The required sample size computed for each AFSC is shown in Table 2:

Table 2

Sample Population Size

<u>AFSC</u>	<u>Sample Size</u>
27XX	65.15
28XX	66.30
51XX	65.75
70XX	64.61
73XX	64.60

In order to assure that the number of responses exceed the required sample size, 150 percent of the actual requirement was mailed for each AFSC. This percentage was determined by the Air Force's average survey response rate (an estimate given by MPC).

The officers to be sampled were located at various Air Force bases worldwide. Each had fifteen years of service or less total active duty service time. The grade

spread of the population ranged from second lieutenant through lieutenant colonel.

In addition to the aspects of occupational demand, this sample was chosen because it typically represents the target groupings of Air Force Officer retention efforts. The first group, second and first lieutenants with less than four years service time, have a service commitment of at least four years from the time they are commissioned. At the end of this period, assuming they are offered continuation in the Air Force, these individuals must make the decision on whether to remain in or to leave the Air Force. The second group consists of Captains with five to ten years commissioned service. This group, for the most part (certain educational opportunities, if accepted, have terms of commitment associated with them), does not have a specified term of commitment to the Air Force and therefore may submit their resignations at any time. The third group consists of Captains, Majors, and Lieutenant Colonels with between ten and fifteen years of commissioned service. This group has less than ten years service remaining to become eligible for military retirement. Additional service commitments come into play for certain educational opportunities and for acceptance of promotions. The last group in the sample are officers who have prior enlisted service time which counts toward retirement, i.e., a second lieutenant with one year commissioned service time and

eight years enlisted time (total service time of nine years). The last two groups have typically made the decision to make the Air Force a career; however, this decision is not irrevocable, and they may submit their resignations at any time unless they are subject to a specified commitment for education or promotion.

Measures

A survey was developed by the authors, as shown in Appendix C, to measure several variables dealing with marketability of respondent skills and availability of employment alternatives. The survey focused on four major areas. The first area dealt with demographic questions, such as age and grade. The remaining three areas included questions pertaining to the officer's intent to remain in or quit the Air Force and/or the intention to search for alternative opportunities, perceptions of the external economic conditions in relation to job hunting, perceptions of the availability of alternative jobs for their specific occupation, and explanatory variables moderating the link between perceptions and behavioral intentions. The following sections discuss the content of the survey.

Demographics

The demographic questions in the survey instrument requested information on age, grade, Duty Air Force Specialty Code (occupational skill), and total time spent on active duty.

The survey measured age on the individual's last birthday. Responses were 1) less than 25; 2) 25-26; 3) 27-28; 4) 29-30; 5) 31-32; 6) 33-34; and 7) over 34 years of age.

The individual's grade (rank) was indicated as 1) First or second lieutenant; 2) Captain; 3) Major; 4) Lieutenant Colonel; and 5) other.

Duty Specialty Codes (Occupational Skills) were indicated by these responses: 1) 27XX, 28XX; 2) 51XX; 3) 70XX; 4) 73XX; and 5) other.

Further breakout of undergraduate degree awarded was elicited for 27XX and 28XX specialty codes by asking if their undergraduate degree is in engineering, and for the 51XX specialty code by asking if their undergraduate degree is in computer science. Responses were measured as either yes or no.

Total time spent on active duty was ascertained by asking: How much time have you spent on active duty in the military? Responses were: 1) less than two years; 2) over two but less than four years; 3) over four but less than six years; 4) over six but less than eight years; 5) over

eight but less than ten years; 6) over ten but less than twelve years; and 7) over 12 years.

Intent to Search and Intent to Remain

A number of leading researchers in the field of turnover postulate that intent to search for alternative jobs and intent to remain/quit should be good predictors of behavior and, consequently, a surrogate measure for the act of turnover (Mobley, 1977).

The survey measured intent to search by asking do you intend to look for civilian employment during the coming year? Responses on a five-point Likert response scale were: 1) very unlikely; 2) somewhat unlikely; 3) don't know; 4) somewhat likely; and 5) very likely.

Intent to remain was measured by asking for a response, again on a five-point Likert scale, to the question: Which of the following best tells how you feel about a career in the Air Force? Responses were: 1) I definitely intend to remain with the Air Force; 2) I probably will remain in the Air Force; 3) I have not decided; 4) I probably will not remain in the Air Force; and 5) I definitely intend to separate from the Air Force.

These two questions were the basis for conceptualizing a possible relationship between perceptions of alternative opportunity and intent to search for alternative employment and/or intent to remain in the Air Force.

External Economic Conditions

Price (1977), in reviewing literature on employment levels and turnover rates, found no evidence to contradict the March and Simon (1958, p. 100) suggestion that "under nearly all conditions, the most accurate single predictor of labor turnover is the state of the economy." Information on how a person perceives the state of the economy in relation to his/her occupation was generated by the following questions in the survey instrument:

Ease of movement asked, "How easy would it be for you to get another job?" Responses were measured by a five-point Likert scale with responses of 1) very easy; 2) somewhat easy; 3) neither easy nor difficult; 4) somewhat difficult; and 5) very difficult.

General economic conditions asked, "What is your impression of the impact of today's general economic conditions in relation to job hunting for your career specialty?" A five-point Likert scale was used with responses 1) Occupational demand for my specialty is insensitive to economic conditions; 2) Occupational demand is somewhat sensitive to economic conditions; 3) I don't know; 4) Occupational demand for my specialty is sensitive to economic conditions; and 5) Occupational demand for my specialty is very sensitive to economic conditions.

General economic conditions in preferred geographic work locations asked, "For your preferred geographic work

location, what is your impression of the effect of an unfavorable local economy in relation to job hunting for your occupation?" Responses were measured by a five-point Likert scale with responses 1) Unfavorable economic conditions would not restrict my job opportunities; 2) Unfavorable economic conditions would moderately restrict my job opportunities; 3) Unfavorable economic conditions would somewhat restrict my job opportunities; 4) Unfavorable economic conditions would slightly restrict my job opportunities; and 5) Unfavorable economic conditions would definitely restrict my job opportunities.

Availability of Alternative Jobs

Several studies (Mobley et al., 1978; Mobley et al., 1979; Miller et al., 1979) found employee expectancy of finding an alternative job to be significantly related to turnover. Individuals have differing levels of information and knowledge of alternatives available which, for different occupations, could influence behavioral intentions. Six questions explore knowledge of and perceptions of alternatives in the survey instrument:

Current demand asked, "Compared to other career fields, what do you feel is the current demand for your occupation in civilian employment?" Responses were measured on a six-point Likert scale with responses 1) very good demand; 2) good demand; 3) average demand; 4) poor

demand; 5) very poor demand; and 6) no demand.

Competitiveness asked, "How competitive do you feel you would be on the open job market?" Responses were measured on a five-point Likert scale with responses, 1) I would be highly competitive; 2) I would be moderately competitive; 3) I would be somewhat competitive; 4) I would be at a competitive disadvantage; and 5) I would be at a severe competitive disadvantage.

Expected offers asked, "If you were to enter the civilian job market, how many organizations do you believe you would receive job offers from?" Responses were measured on a seven-point Likert scale with responses 1) none; 2) one or two; 3) three or four; 4) five or six; 5) seven or eight; 6) nine or ten; and 7) over ten.

Existing offers asked, "Within the past year, how many job offers or 'feelers' (possible job opportunities) in the civilian job market have you had?" Responses were measured on a seven-point Likert scale with responses 1) none; 2) one or two; 3) three or four; 4) five or six; 5) seven or eight; 6) nine or ten; and 7) over ten.

Regional demand asked, "How easy would it be for you to get a job in a location where you would prefer to work?" Responses were measured on a five-point Likert scale with responses 1) very easy; 2) somewhat easy; 3) neither easy nor difficult; 4) somewhat difficult; and 5) very difficult.

Internal options asked respondents to indicate how much they agree or disagree with this statement: "Opportunities such as cross-training into another AFSC or short-term career broadening assignments are better alternatives than leaving the Air Force." Responses were measured on a seven-point Likert scale: 1) strongly disagree; 2) disagree; 3) slightly disagree; 4) neither agree nor disagree; 5) slightly agree; 6) agree; and 7) strongly agree.

Explanatory Variables

Throughout the literature on turnover, researchers sought measures which might explain the relationships among dependent and independent variables. In our research, we postulate that a relationship exists between perceptions of demand for occupational skills, perceptions of the external economy, and perceptions of available alternatives with behavioral intention to search and/or behavioral intentions to remain/quit. Other variables extraneous to the above perceptions might also exist which would help explain our research findings. The survey instrument contains eight questions exploring potential explanatory variables:

Benefit comparison asks, "How do you think the total package of military pay, allowances, and benefits compares with pay and benefits for similar civilian employment for similar work?" Responses were measured on a five-point

Likert scale with responses, 1) Military compensation and benefits far exceed that of civilian employment; 2) Military compensation and benefits slightly exceed that of civilian employment; 3) Military compensation and benefits are about equal to that of civilian employment; 4) Civilian compensation and benefits slightly exceed that of military compensation and benefits; and 5) Civilian compensation and benefits far exceed that of military compensation.

Potential for intrinsic benefits asks, "Do you feel your sense of accomplishment would be higher in civilian employment?" Responses were measured by either a yes or no answer.

Investments ask, "Which of the following would best describe your willingness to leave the Air Force for civilian employment given the number of years you have already invested?" Responses were measured on a five-point Likert scale with responses, 1) I have invested too much time in the Air Force at this point in my career to leave before I'm eligible to retire; 2) the time I have invested is substantial and it would be a very difficult decision to leave; 3) I am undecided, I don't know; 4) the time I have invested would have little significance in my decision to leave; and 5) The time I have invested in the Air Force would make no difference at all in my decision to leave.

Normative expectations ask, "What do you consider to be the optimal time (in years) to leave the service?" Responses were measured on a seven-point Likert scale with responses 1) Immediately after your initial commitment; 2) between four and eight years; 3) between eight and twelve years; 4) between twelve and sixteen years; 5) between sixteen and twenty years; 6) between twenty and twenty-five years; and 7) over twenty-five years.

Impulsiveness asks, "When it comes to making important decisions, are you likely to be:" 1) highly impulsive in deciding to do what strikes your fancy; 2) somewhat impulsive in deciding; 3) somewhat knowledgeable of alternatives before deciding; or 4) highly knowledgeable of alternatives before deciding.

Information search asks, "How often would you say that you look at advertising in trade or professional journals, magazines, newspapers, etc., to see what kind of job alternatives exist in your field within the civilian job market?" Responses were measured on a seven-point Likert scale with responses 1) never; 2) almost never; 3) not very often; 4) often; 5) very often; 6) almost always; and 7) always.

Questions 23 and 24 ask the respondent to indicate how much he/she agree or disagree with the following statements.

Family and/or friends openly encourage me to pursue a career in the Air Force.

Associations and working relationships with contractors contribute to my awareness of civilian job opportunities.

Responses, on a seven-point Likert scale, were 1) strongly disagree; 2) disagree; 3) slightly disagree; 4) neither agree nor disagree; 5) slightly agree; 6) agree; and 7) strongly agree.

Procedure

The objectives of this research were accomplished through the administration of a survey to an Air Force wide random sampling of officers in five occupational skills: (1) 27XX Program Management; (2) 28XX Engineering; (3) 51XX Computer Technology; (4) 70XX Administration; and (5) 73XX Personnel. A high demand occupational group was formed from respondents in Program Management (27XX), Engineering (28XX), and Computer Technology (51XX). A low demand occupational group contained participants from the Administration (70XX) and Personnel (73XX) career fields.

Random sampling was accomplished through the use of the ATLAS data base at MPC. Officers from the grades 01 through 05, in each of the five AFSCs were selected in the three year groups of 0-4, 5-9, and 10-15 years representing total service time. Every third name in each category file

Table 3
Random Sampling by Total Years of Service

<u>AFSC</u>	<u>Years of Service</u>		
	<u>0-4</u>	<u>5-9</u>	<u>10-15</u>
27XX	85	85	85
28XX	85	85	85
51XX	85	85	85
70XX	85	85	85
73XX	85	85	85
TOTAL	425	425	425

Table 4
Response Rate by Subgroup

<u>AFSC</u>	<u>Sample Size</u>
27XX, 28XX	322
51XX	158
Group 1 Subtotal	480
70XX	99
73XX	100
Group 2 Subtotal	199
Other [†]	60
TOTAL	739

[†]These cases were eliminated from the analyses because the origin of this data could not be determined.

was selected in order to obtain the sampling matrix shown in Table 3.

MPC provided mailing labels to enable the survey to be sent to the participants. The cover letter on the survey instrument assured respondents that their answers would be held confidential. A Privacy Statement explained to the respondents the purposes and uses of their responses and that participation in the survey was voluntary. There were no questions in the instrument that would permit identification of the respondents. It was assumed that the anonymity, confidentiality, and voluntary nature of the study would result in responses that reflected the respondent's unbiased perceptions.

The response rate for the survey was 67.7 percent. Of the 1,115 surveys mailed out, 26 were returned as "undeliverable" and 739 persons returned completed questionnaires. The breakdown of respondents into subgroups is presented in Table 4.

External Validity

External validity refers to the generalizability of research findings to some larger population. The randomness of selection procedures, coupled with the large sample size should enable us to generalize the findings to the entire population of Air Force officers in the following AFSCs: 27XX, 28XX, 51XX, 70XX, and 73XX.

Analyses

Initial Data Analysis

The first part of the data analysis was accomplished by using a subroutine from the Statistical Package for the Social Sciences (SPSS). The subroutine FREQUENCIES provides a frequency distribution table and a number of descriptive statistics for each response. In addition, the subroutine PEARSON CORRELATION was used to compute Pearson product-moment correlations for pairs of variables. The Pearson correlation coefficient r is used to measure the strength of relationship between two interval-level variables. The strength of the relationship indicates, when r is squared, the proportion of variance in one variable explained by the another. These procedures were used as the first step in studying the relationship between possible predictor variables.

Regression Analysis

Regression analysis was used to complete the tests of hypotheses. Regression equations were developed for the overall group, for the high demand and the low demand occupational groups, and for each of the four Air Force Specialty Code (AFSC) subgroups. Separate regressions were run using intent to remain/quit as a criterion variable and intent to search as a criterion variable. Composition of

predictor variables entered in any given regression equation depended upon hypothesized relationships suggested by the conceptual model. In the regression equations, independent variables were entered using stepwise, and hierarchical with stepwise inclusion procedures.

CHAPTER III

RESULTS

This chapter presents the results of the statistical analyses testing the research questions presented in Chapter II. Each research question is evaluated separately. Evaluation of research question number three is reserved for discussion in Chapter IV. Supplemental correlation matrices and descriptive statistics are presented in Appendices A and B for each Air Force Specialty Code sampled. The descriptive statistics for each group are presented in Tables 5, 6, and 7. The correlation matrices for the overall group, the high demand group, and the low or normal demand group are presented in Tables 8, 9, and 10, respectively.

Research Question 1

How much influence does (a) perceived availability of alternative jobs and (b) perceived external economic conditions have on an individual's formulation of an intent to search for alternative jobs, and are these perceptions significant predictors of behavioral intention to remain in (or quit) an organization?

Table 5
Descriptive Statistics for Overall Group

Variable	\bar{X}	SD	N
1. Age	4.42	2.04	739
2. Rank	1.76	0.82	739
3. Air Force Specialty Code	2.22	1.34	739
4. Tenure	4.29	2.07	737
5. Benefits Comparison	3.69	0.99	737
6. Ease of Movement	2.02	1.06	736
7. Intent to Remain	1.97	1.07	738
8. Current Demand	1.89	1.01	739
9. Competitiveness	1.59	0.76	737
10. Expected Offers	3.99	1.56	735
11. Time Invested	2.85	1.28	739
12. General Economic Conditions	2.11	0.89	738
13. Existing Offers	1.83	1.05	738
14. Normative Expectations	3.49	2.17	731
15. General Economic Conditions for Preferred Work Areas	2.44	1.18	735
16. Regional Demand	2.27	1.03	736
17. Impulsiveness	3.59	0.56	736
18. Information Search	3.66	1.46	739
19. Internal Options	4.44	1.91	738
20. Encouragement	4.49	1.79	738
21. Association	4.73	1.94	738
22. Intent to Search	1.88	1.30	738

Table 6
Descriptive Statistics for High Demand Group

Variable	\bar{X}	SD	N
1. Age	4.21	2.10	480
2. Rank	1.73	0.80	480
3. Air Force Specialty Code	1.33	0.47	480
4. Tenure	4.07	2.04	479
5. Benefits Comparison	3.85	0.85	478
6. Ease of Movement	1.75	0.93	478
7. Intent to Remain	2.10	1.07	479
8. Current Demand	1.53	0.77	480
9. Competitiveness	1.52	0.71	478
10. Expected Offers	4.24	1.59	477
11. Time Invested	3.00	1.26	480
12. General Economic Conditions	1.88	0.79	479
13. Existing Offers	1.95	1.08	479
14. Normative Expectations	3.51	2.16	474
15. General Economic Conditions for Preferred Work Areas	2.24	1.09	477
16. Regional Demand	2.06	0.95	477
17. Impulsiveness	3.57	0.57	489
18. Information Search	3.69	1.43	480
19. Internal Options	4.07	1.88	479
20. Encouragement	4.28	1.72	480
21. Associations	5.34	1.62	480
22. Intent to Search	1.87	1.29	480

Table 7
Descriptive Statistics for Low Demand Group

Variable	\bar{X}	SD	N
1. Age	4.79	1.85	199
2. Rank	1.71	0.84	199
3. Air Force Specialty Code	3.50	0.50	199
4. Tenure	4.61	2.06	199
5. Benefits Comparison	3.30	1.21	199
6. Ease of Movement	2.70	1.07	198
7. Intent to Remain	1.74	1.03	199
8. Current Demand	2.72	1.05	199
9. Competitiveness	1.80	0.87	199
10. Expected Offers	3.39	1.33	199
11. Time Invested	2.56	1.28	199
12. General Economic Conditions	2.62	0.94	199
13. Existing Offers	1.55	0.90	199
14. Normative Expectations	3.50	2.24	198
15. General Economic Conditions for Preferred Work Areas	2.95	1.26	198
16. Regional Demand	2.83	1.05	199
17. Impulsiveness	3.60	0.56	198
18. Information Search	3.57	1.51	199
19. Internal Options	5.33	1.71	199
20. Encouragement	5.02	1.87	198
21. Association	3.44	1.93	199
22. Intent to Search	1.96	1.35	198

Table 8
Correlation Matrix for Overall Group

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Age																						
2. Rank	.61**																					
3. Air Force Specialty Code	.12**	.08*																				
4. Tenure	.86**	.64**	.14**																			
5. Benefits Comparison	.08	.11*	.15**	.13**																		
6. Ease of Movement	-.05	-.06	.24**	-.07	-.29																	
7. Intent to Remain	-.38**	-.26**	.15**	-.42**	.06	-.07																
8. Current Demand	-.03	-.07	.33**	-.06	-.30**	.61**	-.09*															
9. Competitiveness	-.09	-.08	.06	-.14**	-.24**	.58**	.03	.47**														
10. Expected Offers	.11*	.06	-.16**	.14**	.30**	.51**	.00	-.47**	-.47**													
11. Time Invested	-.61**	-.43**	-.14**	-.69**	.01	-.04	.52**	-.06	-.03	-.05												
12. General Economic Conditions	-.05	-.07	.21**	-.08	-.23**	.49**	-.04	.64**	.45**	-.42**	-.02											

Table 8 (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
13. Existing Offers	.02	.02	-.13	-.00	.23	.35	.18	.44	.28	.44	.35	.12	-.27									
14. Normative Expectations	-.19	.11	.01	-.19	.05	.02	-.39	.00	-.06	.00	-.23	.00	-.08									
15. General Economic Conditions - Preferred Work Areas	-.02	-.07	.15	-.05	-.19	.39	.08	.46	.38	.32	-.06	.57	-.25	.00								
16. Regional Demand	-.01	-.06	.16	-.04	-.24	.64	-.09	.54	.51	-.47	-.08	.51	-.31	.00	.54							
17. Impulsiveness	.02	.04	.06	.06	.05	-.11	.01	-.13	-.15	.15	-.01	-.07	.13	.01	-.08	-.11						
18. Information Search	.02	.02	-.02	.03	.18	.20	.21	.16	.15	.16	.06	-.10	.28	-.14	-.12	-.13	.13					
19. Internal Options	-.02	-.08	.21	-.01	-.18	.23	-.34	.24	.14	-.16	-.09	.18	-.21	.22	.14	.18	.00	-.16				
20. Encouragement	.01	-.09	.13	.00	-.22	.12	.25	.07	.04	-.09	-.07	.08	-.11	.17	.07	.06	.07	-.10	.34			
21. Association	.04	.07	-.40	.03	.13	.32	.05	-.31	.22	.21	.03	-.25	.22	.04	-.20	-.25	-.00	.11	-.11	-.11		
22. Intent to Search	-.07	-.13	-.02	-.12	.09	-.08	-.08	-.02	-.06	.04	.29	.02	-.27	.27	-.06	-.06	.04	.21	.24	-.12	.00	

* p < .05

** p < .01

Table 9
Correlation Matrix for High Demand Group

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Age																						
2. Rank	.65**																					
3. Air Force Specialty Code	-.10	-.13																				
4. Tenure	.88**	.70**	.09*																			
5. Benefits Comparison	.09	.03	-.01	.13**																		
6. Ease of Movement	-.14**	-.10	-.14**	-.18**	-.26**																	
7. Intent to Remain	-.44**	-.33**	-.01	-.45**	-.05	.03																
8. Current Demand	-.15**	-.10	-.32**	-.19**	-.21**	.62**	.04															
9. Competitiveness	-.14**	-.14**	-.11	-.22**	-.23**	.61**	.09	.47**														
10. Expected Offers	.15**	.07	.10	.21**	.27**	-.50**	-.06	-.43**	-.49**													
11. Time Invested	-.61**	-.50**	.05	-.68**	-.01	.09	.53**	.09	.12	-.13												
12. General Economic Conditions	-.15**	-.10	-.30**	-.21**	-.19**	.47**	.05	.55**	.43**	-.38**	.12											

Table 9 (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
13. Existing Offers	.05	.03	.06	.06	.16	.16	.12	.20	.29	.33	.04	.19										
14. Normative Expectations	.21	.13	.06	.19	.09	.06	.44	.00	.06	.01	.24	.01	.10									
15. General Economic Conditions - Preferred Work Areas	-.05	-.07	-.19	-.11	-.18	.31	.03	.39	.32	.26	.00	.49	.20	.00								
16. Regional Demand	-.07	-.08	-.21	-.11	-.20	.58	.06	.45	.45	.41	.03	.45	.22	.08	.50							
17. Impulsiveness	.04	.06	.06	.07	.04	.15	.05	.19	.18	.20	.01	.14	.15	.03	.10	.16						
18. Information Search	.04	-.00	.06	.06	.19	.19	.18	.17	.14	.18	.02	.07	.26	.16	.09	.10	.12					
19. Internal Options	-.07	-.07	.02	-.07	-.08	.16	.26	.12	.16	.10	.02	.10	.18	.20	.11	.14	.08	.14				
20. Encouragement	-.04	-.08	.04	-.02	.21	.00	.20	.06	.01	.03	.01	.00	.03	.17	.02	.01	.10	.04	.27			
21. Association	.15	-.12	.18	.17	.10	.16	.04	.04	.15	.11	.08	.03	.15	.05	.04	.10	.02	.06	.02	.04		
22. Intent to Search	-.07	-.16	-.06	-.11	.11	.11	.52	-.06	.09	.08	.27	.00	.28	.28	.09	.10	.06	.21	.26	.10	.00	

* $p < .05$ ** $p < .01$

Table 10

Correlation Matrix for Low Demand Group

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Age																						
2. Rank	.45**																					
3. Air Force Specialty Code	.16	.26**																				
4. Tenure	.81**	.48	.18																			
5. Benefits Comparison	.19	.21	.02	.23**																		
6. Ease of Movement	-.04	.02	-.02	-.01	-.19																	
7. Intent to Remain	-.24	-.14	.05	-.36**	-.02	-.06																
8. Current Demand	-.06	-.03	-.03	-.07	-.16	.41**	-.12															
9. Competitiveness	-.07	.00	.04	-.07	-.18	.54**	.02	.44**														
10. Expected Offers	.11	.02	-.08	.06	.24**	.41**	.01	-.41**	-.42**													
11. Time Invested	-.57**	-.28	-.07	-.72**	-.08	-.09	.50**	-.05	-.02	.03												
12. General Economic Conditions	-.02	.00	-.04	.02	-.08	.33**	-.10	.56**	-.42**	-.34**	-.10											

Table 10 (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
13. Existing Offers	-.02	-.02	-.05	-.12	.28	-.37	.23	-.35	-.22	.35	.17	-.33										
14. Normative Expectations	.15	.12	.11	.24	.06	.03	-.33	-.02	-.09	-.00	-.25	-.04	-.07									
15. General Economic Conditions - Preferred Work Areas	-.03	-.04	.02	.04	-.08	.33	-.10	.37	.39	-.30	-.11	.57	.23	.02								
16. Regional Demand	-.02	-.00	.05	.00	-.13	.65	-.04	-.50	.54	-.47	-.11	.45	-.37	-.14	.49							
17. Impulsiveness	-.03	.02	.04	.04	-.07	-.03	.07	-.17	-.15	.08	-.05	-.01	.08	.09	-.09	.03						
18. Information Search	-.08	.01	-.11	-.07	.14	-.24	.28	-.19	-.17	.15	.19	-.17	.35	-.10	-.20	-.17	.16					
19. Internal Options	.04	-.05	.00	.06	-.17	.11	-.49	.13	-.02	-.04	-.20	.08	-.22	.34	-.03	.01	.14	.20				
20. Encouragement	.12	-.05	-.02	.07	-.13	.08	-.31	-.02	-.05	-.01	-.13	-.03	-.16	.17	-.02	-.05	.01	-.20	.42			
21. Association	.00	.02	-.17	-.05	-.12	-.16	-.01	-.11	-.18	.05	.01	-.18	.19	.08	-.10	-.14	-.03	.20	.02	-.05		
22. Intent to Search	-.09	-.07	-.02	-.16	.11	-.09	.57	-.01	-.00	.02	.36	.02	.28	-.25	-.07	-.03	.01	.20	-.29	-.22	-.02	

* $p < .05$ ** $p < .01$

Intent to Search II

Table 11 shows the results of the regression for intent to search II and its antecedent variables according to our proposed model. For the entire group of respondents, results show that intrinsic benefits (sense of accomplishment), the amount of time already invested in the Air Force, internal options available for movement within the Air Force, a person's age, and the individual's perception of his/her optimal time (in years) to leave the service combined to significantly predict intent to search ($R^2 = .22$, $p < .01$).

Intent to Remain

According to the next phase of the proposed model, the results derived from the individual's estimation of his/her marketability leading to the intention to search, plus the subsequent intervening variables should combine to predict a person's intention to remain in the Air Force. The results of this regression, shown in Table 12, indicate that the intention to search II and information search combine to predict intent to remain ($R^2 = .28$, $p < .01$) for the entire group of respondents.

Evaluation of the intent to search regression equation appears to reveal that if a person believes his/her sense of accomplishment to be equal or better than what could be achieved in employment outside the Air Force, and

Table 11
Regression on Intent to Search
with Antecedent Variables

<u>Variable</u>	<u>Mult R</u>	<u>R²</u>	<u>R² Change</u>	<u>Simple r</u>	<u>Beta</u>	<u>F</u>
Intrinsic Benefits	.31	.10	.10	-.31	-.19	75.00**
Time Invested	.40	.16	.06	.30	.32	53.46**
Internal Options	.44	.19	.03	-.25	-.16	29.63**
Age	.46	.21	.01	-.07	.19	11.79**
Normative Expectations	.47	.22	.01	-.27	-.13	12.84**

**p < .01

Table 12
Regression on Intent to Remain with Intervening
Variables Controlling for Intent to Search
(Hierarchical and Stepwise Inclusion)

<u>Variable</u>	<u>Mult R</u>	<u>R²</u>	<u>R² Change</u>	<u>Simple r</u>	<u>Beta</u>	<u>F</u>
Intent to Search	.52	.27	.27	.52	.50	269.44**
Information Search	.53	.28	.01	.21	.10	11.44**

**p < .01

given the amount of time he or she has already invested in the service toward retirement combined with that person's age and his/her perception of the optimal time in years to leave the service, then cross-training into another career field or acceptance of career broadening assignments is a viable option to be considered before beginning the search for employment outside the Air Force.

For the regression on intent to remain, the only significant predictors of intent to remain were intent to search and the variable information search. Information search dealt with the frequency with which an individual looks at advertising to see what kind of job alternatives exists within that person's career field. Analysis indicates that as the frequency of looking at advertising increases, so does the probability of an individual deciding to leave the Air Force.

Research Question 2

Are there significant differences in the perceptions of alternatives held by individuals in different Air Force occupations?

In order to answer this question, the sample population was broken down into two groups consisting of high demand occupations (Engineers and Computer Scientists = group 1), and low or normal demand occupations

(Administrative and Personnel specialists = group 2).

Results for both groups are presented in Tables 13 and 15.

Intent to Search

The results of the regression for intent to search and its antecedent variables for both groups are presented in Table 13. For group 1, intrinsic benefits, internal options, time invested, normative expectations, and age combined to significantly predict intent to search ($R^2 = .25$, $p < .01$). For group 2, time invested, internal options, and intrinsic benefits combined to significantly predict intent to search ($R^2 = .21$, $p < .01$).

For those variables which entered the regression equations for both group 1 and group 2 (intrinsic benefits, time invested, and internal options), a test for differences between group means was conducted using a t-test procedure (Table 14). Results indicated that for internal options and time invested we can conclude that, at the $\alpha = .01$ level, the means are not equal. However, for intrinsic benefits the t-test procedure revealed that we can conclude the means are not appreciably different. The test on intrinsic benefits revealed that, when it comes to sense of accomplishment, there is no difference between occupational groupings on the role this variable plays in determining intent to search for alternative jobs.

Table 13
Regression on Intent to Search
with Antecedent Variables

Group 1						
Variable	Mult R	R ²	R ² Change	Simple r	Beta	F
Intrinsic Benefits	.36	.13	.13	-.36	-.25	68.81**
Internal Options	.43	.18	.05	-.27	-.18	27.51**
Time Invested	.48	.23	.05	.27	-.26	24.71**
Normative Expectations	.49	.24	.01	-.29	-.13	6.85**
Age	.50	.25	.01	-.07	.18	6.71**
Group 2						
Variable	Mult R	R ²	R ² Change	Simple r	Beta	F
Time Invested	.36	.13	.13	.36	.40	27.52**
Internal Options	.42	.19	.05	-.29	-.12	11.20**
Intrinsic Benefits	.46	.21	.03	-.29	-.16	7.60**
Age	.47	.22	.01	-.09	.14	3.67

**p < .01

Table 14

T-Test for Difference of Group
Means for Common Predictors
of Intent to Search

<u>Variable</u>	<u>Group</u>	<u>\bar{X}</u>	<u>SD</u>	<u>t</u>	<u>p</u>
Intrinsic Benefits	1	.71	.46	- .22	.82
	2	.72	.47		
Time Invested	1	2.00	1.25	4.10	.00
	2	1.56	1.27		
Internal Options	1	3.07	1.88	-8.49	.00
	2	4.33	1.70		

Table 15

Regression on Intent to Search (Hierarchy)
and Antecedent Variables (Stepwise Inclusion)

Group 1						
<u>Variable</u>	<u>Mult R</u>	<u>R²</u>	<u>R² Change</u>	<u>Simple r</u>	<u>Beta</u>	<u>F</u>
Intent to Search	.52	.27	.27	.52	.51	171.44**
Ease of Movement	.53	.28	.01	.03	.12	5.09*
Information Search	.54	.29	.01	.19	.11	6.93**
Group 2						
<u>Variable</u>	<u>Mult R</u>	<u>R²</u>	<u>R² Change</u>	<u>Simple r</u>	<u>Beta</u>	<u>F</u>
Intent to Search	.56	.32	.32	.56	.54	78.58**
Information Search	.59	.35	.03	.28	.15	8.17**

* $p < .05$

** $p < .01$

Intent to Remain

Results of the regression for group 1 (Table 15) indicate that ease of movement and information search combine to predict intent to remain in conjunction with the effects of intent to search ($R^2 = .29$, $p < .05$). For group 2, intent to search and information search combine to significantly predict intent to remain ($R^2 = .35$, $p < .01$).

Testing for differences of means between group 1 ($\bar{X} = 2.69$, $SD = 1.43$) and group 2 ($\bar{X} = 2.56$, $SD = 1.51$) failed to isolate a significant difference between groups on this variable ($t = 1.00$, $P = .31$). This finding indicates that for both group 1 and group 2 members, the frequency with which individuals look at advertising for alternative job possibilities is a common significant predictor of intent to remain. In response to this, the Air Force might direct an advertising effort in major publications (trade journals, newspapers, etc.) to offset this stimulus for alternative jobs.

Analysis reveals that there are several common variables which significantly predict intent to search and intent to remain for both occupational groups. Conclusions which can be drawn indicate that a person's sense of accomplishment, willingness to leave the Air Force given the time they have already invested toward retirement, and any internal options for cross-training or career broadening are areas which the Air Force can investigate and

devote resources in order to decrease the probability of an Air Force officer forming the intention to search for alternative employment outside of the Air Force.

Supplemental Analysis

In an effort to further explore differences between the high demand and low or normal demand sample groups on intent to remain, two additional regressions were performed. Variable inter-correlations suggested that time invested in the service and intent to remain were directly related rather than indirectly, as the model implies.

Stepwise inclusion of the intervening variables proposed in our model with the addition of time invested was used to predict the criterion variable — intent to remain. The results (Table 16) showed substantial increases in the predictive power of the total model as compared to the regression on intent to remain for research question two. For the overall group, time invested, intent to search, and information search combined to predict intent to remain with $R^2 = .43$ ($p < .01$) compared to $R^2 = .28$ ($p < .01$) from the regression without time invested. For group 1, these same three variables predicted intent to remain with $R^2 = .45$ ($p < .01$) compared to $R^2 = .29$ from the previous regression. For group 2, intent to search, time invested, and information search combined to predict intent to remain with an $R^2 = .43$ ($p < .01$) compared to

Table 16

Regression on Intent to Remain Adding Time Invested to the Model (Stepwise Inclusion) for Total Sample Subgroups

Overall Group						
Variable	Mult R	R ²	R ² Change	Simple r	Beta	F
Time Invested	.52	.27	.27	.52	.33	275.27**
Intent to Search	.66	.44	.15	.52	.32	181.14**
Information Search	.66	.43	.01	.21	.08	14.28**
Group 1						
Variable	Mult R	R ²	R ² Change	Simple r	Beta	F
Time Invested	.54	.29	.29	.54	.37	189.87**
Intent to Search	.66	.44	.15	.52	.32	123.65**
Information Search	.67	.45	.02	.19	.11	12.87**
Group 2						
Variable	Mult R	R ²	R ² Change	Simple r	Beta	F
Intent to Search	.56	.32	.32	.56	.33	57.06**
Time Invested	.65	.42	.10	.49	.26	32.94**
Information Search	.66	.43	.02	.28	.87	5.35*

*p < .05

**p < .01

$R^2 = .35$ from the previous regression.

Testing the difference in means for time invested between group 1 ($\bar{X} = 2.00$, $SD = 1.26$) and group 2 ($\bar{X} = 1.56$, $SD = 1.28$) reveals that, at the $\alpha = .01$ level, we can conclude that the means are not equal ($t = 4.10$, $p = .00$). This indicates that group 1 perceptions differ from group 2 perceptions regarding their willingness to leave the Air Force given the amount of time they have already invested toward retirement. These results suggest a modification of our proposed model because time invested appears to play a dual role in predicting unique variance in both intent to search and intent to remain.

A second supplemental regression employed stepwise inclusion of variables. However, this analysis employed all variables in the model without reference to any a priori ordering of merit to ascertain whether future gains in predictive power might be realized. The results (Table 17) again produced significant increases in the predictive power of the model over the previous regressions on intent to remain. These results also suggest that different models were operating for the high and low demand occupational groupings. However, the different models were highly comparable.

For group 1, time invested, intent to search, normative expectations, age, encouragement, and internal options combined to predict intent to remain with

Table 17

Regression on Intent to Remain with Stepwise
Inclusion of All Variables in the Model

Variable	Overall Group					
	Mult R	R ²	R ² Change	Simple r	Beta	F
Time Invested	.52	.27	.27	.52	.21	275.27**
Intent to Search	.65	.42	.15	.52	.33	177.72**
Internal Options	.68	.47	.05	-.35	-.16	62.16**
Normative Expectations	.71	.50	.03	-.40	-.16	44.58**
Age	.72	.52	.02	-.38	.10	26.62**

Variable	Group 1					
	Mult R	R ²	R ² Change	Simple r	Beta	F
Time Invested	.53	.29	.29	.53	.22	189.87**
Intent to Search	.66	.44	.15	.52	.33	120.91**
Normative Expectations	.70	.50	.06	-.45	-.19	56.84**
Age	.72	.52	.02	-.43	.18	24.82**
Encouragement	.74	.54	.02	-.22	-.13	19.89**
Internal Options	.75	.56	.01	-.26	-.11	11.68**

Variable	Group 2					
	Mult R	R ²	R ² Change	Simple r	Beta	F
Intent to Search	.57	.32	.32	.57	.37	90.30**
Internal Options	.66	.44	.12	-.49	-.28	39.96**
Time Invested	.72	.51	.07	.50	.15	29.62**

**p < .01

$R^2 = .56$ ($p < .01$). For group 2, intent to search, internal options, and time invested significantly predict intent to remain with $R^2 = .51$ ($p < .01$). Intent to search, time invested, and internal options were common predictor variables for both occupational groups.

The most significant finding in relation to the differences between the high demand and low or normal demand occupation groups is that of willingness to leave the Air Force given the time already invested in the service.

Based on the differences of means determined through statistical analysis, it appears that group 1 is keeping their options to leave open. Group 2, however, appears more committed to remaining in the Air Force, at least until they are eligible to retire. Expanding further on the results, the mean group responses indicate:

1. Group 1 perceives that if they were to leave the Air Force tomorrow, it would be either very easy or somewhat easy for them to get another job. Group 2 perceives it would be neither easy nor difficult for them to find alternative employment.
2. Both groups perceive their sense of accomplishment would not be any greater in civilian employment.
3. Group 1 perceives the total package of civilian compensation to slightly exceed that of military compensation, while group 2 perceives them to be about equal.

4. Group 1 perceives they have a better job demand than group 2. Both groups feel they would be moderately competitive for these jobs.

5. Group 1 perceives they would have little trouble finding a civilian job they might want, given unfavorable economic conditions. Group 2 does not know what results job hunting would have in unfavorable conditions.

6. Family and friends encourage group 2 members to pursue an Air Force career, while the families and friends of group 1 members neither encourage nor dissuade an Air Force career.

7. Group 1 perceives associations and working relationships with contractors as contributions to their awareness of civilian job opportunities, while group 2 members do not.

In summary, this research indicates that, although differing models are in operation for the occupational groupings, the models were highly comparable. The discussions on the implications to the Air Force of this research and the contributions to formal turnover theory are presented in Chapter IV.

CHAPTER IV

DISCUSSION AND RECOMMENDATIONS

There are several turnover models in existence today which seek to illustrate the major causes of employee turnover by viewing attrition as a psychological process. This paper reviewed turnover models by the following authors:

1) March and Simon; 2) Price; 3) Mobley; 4) Bluedorn; and 5) Mowday, Porter, and Steers. This section will integrate the present findings with major themes contained in these models.

March and Simon (1958) suggested through their model that a person's ease of movement depends on the availability of jobs for which that person is qualified in organizations visible to him/her. In an analysis performed in 1974 by Schwab and Dyer (Mobley, 1982), low support was found for the relationship between perceptions of available alternatives and ease of movement. The model, however, did contribute to turnover theory by establishing the need to assess both the economic-labor market and individual behavioral variables.

Price (1977) proposed a model in which opportunity was viewed as an intervening variable rather than a major

determinant of turnover. He suggested that turnover occurs only when opportunity is relatively high. Bluedorn (1980), after researching Price's model, did not find support for Price's hypothesized relationship between the treatment of opportunity as a determinant of satisfaction rather than as an intervening variable between satisfaction and turnover.

Price and Mueller (1981) proposed a revised model where opportunity was treated as an independent variable in the turnover act. Their results indicated that opportunity was the second most significant determinant of turnover.

Mobley (1982) expanded on the relationship between the probability of finding an alternative job as related to an individual's intentions to remain in an organization. Mobley presented one of the most detailed models involving alternative job opportunities as determinants of turnover. Mobley examined an individual's perception of the labor market, individual differences in values, expectations, and personal and occupational variables which lead to the expected utility of alternatives. Mobley's expanded model has only received indirect empirical support.

Mowday, Porter, and Steers (1982) integrated and summarized earlier research on the turnover process. They suggested that the process includes an individual's available information about alternative job(s) and organizations.

From a theoretical perspective, each model made an important contribution to turnover literature. Each model has suggested the importance of the concept of opportunity, or alternatives which help explain the turnover process. However, a lack of empirical research in this area suggests further study into the process by which individuals perceive their available opportunities (Mowday, Porter, & Steers, 1982; Mobley, 1980). For the most part, research in this literature has examined alternative opportunity as an "environmental variable," with a lack of specificity regarding how individuals perceive and evaluate these alternative opportunities.

In summary, experts in the field of turnover research agree on the intuitive nature of the role of alternatives in predicting turnover; however, the process used by individuals to seek out and evaluate their own alternatives is yet unclear.

In an effort to better define this individual process, we constructed a model depicting hypothetical relationships between components of the labor market evaluation process. This approach attempted to organize these variables into those preceding the intent to search and the intent to remain. We found that several variables which predict intent to search also predict intent to remain.

With respect to intent to search for alternative jobs, internal options and intrinsic benefits were significant predictors for both group 1 and group 2. For the high demand occupations, movement within the organization does not appear to represent any special significance as an alternative to leaving the organization. For the low or normal demand occupations, the group as a whole would appear to consider internal options as more important relative to the benefits of leaving the organization. For both groupings of occupations, the sense of accomplishment associated with the current job appears to have a direct influence on whether to initiate a search for alternative employment.

Normative expectations, i.e., what the individual believes to be the optimal time to remain in the organization, were a significant predictor of intent to search for the high demand occupation group. It has long been an established norm for engineers and computer scientists that they begin to stagnate in their professional development if they remain in the same job or organization too long — you don't have to ask too many employers or professional recruiters to get a good idea of the amount of "job hopping" that goes on in these occupations. Unfavorable economic conditions and the high rates of inflation over the past several years may have diminished this tendency, but it appears that it is still a significant factor in

predicting intent to search for alternative jobs for these people.

The frequency with which an individual looks at advertising in trade or professional journals, magazines, newspapers, etc., to see what kind of alternative employment opportunities exist, predicts intent to remain for both high demand and low or normal demand occupations. One might argue that, as the frequency of looking at this type of advertising increases and becomes more intense, so does the probability of a person increasing his/her intent to quit the organization. The exact nature of this relationship needs to be explored further.

For the high demand occupation group, ease of movement was a significant, but not strong, predictor of intent to remain. It seems rather intuitive that perceiving a high number of alternative job possibilities would significantly impact a person's decision to remain with or to quit an organization, yet in actual fact, its effect was rather small.

Modifying the model to include time invested as a direct predictor of intention to remain increases the predictive power of the model, but reveals no further discernible differences between group 1 and group 2 predictors of intent to remain.

Regression analysis allowing all variables to enter freely resulted in additional distinctions between group 1

occupations and group 2 occupations. In addition, the model became a more powerful predictor of intent to remain for both groups. However, this analysis led to deletion of information search (the most powerful predictor after intent to search) from this analysis.

One of our objectives, as stated in research question three, was to determine if our research clarified the role of perceived alternatives to formal turnover theory.

Our study attempted to provide information on the role of individual perceptions and their relationships to behavioral characteristics identified with occupational groupings. First, the results indicate that perceptions of available job alternatives play an important role in studying turnover as evidenced by the predictive power of our model. However, the exact nature of how these variables interact on the turnover process remains in need of future research. Secondly, this research suggests that there are separate turnover models applicable for differing occupational groups. However, the different models are highly comparable, based upon demand for that occupation. This is indicated by the fact that different variables entered in the two regression equations for the separate groups. This may be a contributing factor to the elusiveness of the exact role of perceptions in formal theory. Although our results indicated that the turnover process was the same for both occupational groups, the same

variables did not have the same significance in the model. This may provide partial support to the criticism of some models that deal in the aggregate, and generalize to all occupations in an attempt to predict an individual decision; all individuals will not respond to the same types of variables when they are considering staying in, or leaving their employing organization.

The results obtained in this research tend to support turnover theory. Individuals seek out available alternatives prior to forming intentions to quit or remain in their present jobs (March & Simon, 1958; Price, 1977; Price & Mueller, 1980; Bluedorn, 1980; Mobley, 1982; Mowday, Porter, & Steers, 1982). Our results also support turnover theory by Mobley (1982) and Mowday, Porter, and Steers (1982) who suggest turnover processes portraying individual perceptions as a complex interaction of psychological and personal choices.

The hypothetical model proposed in this paper depicted the labor market evaluation process as two-staged. However, our results failed to depict a clear two-stage cycle. We did find that certain variables were more significant for certain occupations or career fields. This is a finding which may prove to be a significant contribution to turnover theory. Our results indicate that a person's willingness to leave the Air Force given the time already invested in the service toward retirement is an

important variable which both groups consider when forming intentions to remain. Based upon the mean response for this item, high demand occupations do not consider time invested to be as much of a deterrent to leaving as do low demand occupations. In addition, time invested entered the regression equation ahead of intent to search, producing an R^2 change of .29 for the high demand group. In contrast, time invested entered the regression equation after intent to search and internal options and produced an R^2 change of .07 for the low demand group. This indicates that willingness to leave given time invested is a more powerful predictor than intent to search for people in high demand occupations formulating an intent to remain. Furthermore, this group indicated that encouragement of family and friends, and normative expectations were also important in their formation of perceptions of alternatives available to them.

Inherent in any discussion and model of turnover, a generalization exists as to the role played by the amount of information available and its use to an employee searching for alternative jobs. This generalization stems, in part, from recruiting messages in countless publications which are available to individuals whether they are actively searching for alternative employment or not. An item in our survey dealt with this issue in order to ascertain whether this "advertising" has some predictive

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AN INVESTIGATION OF THE PROCESS BY WHICH AIR FORCE
OFFICERS VIEW AND EVAL. (U) AIR FORCE INST OF TECH
WRIGHT-PATTERSON AFB OH SCHOOL OF SYST.

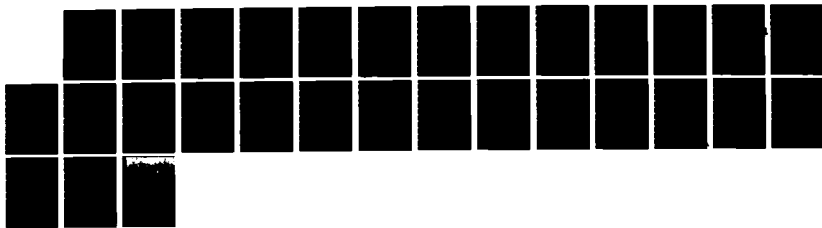
2/2

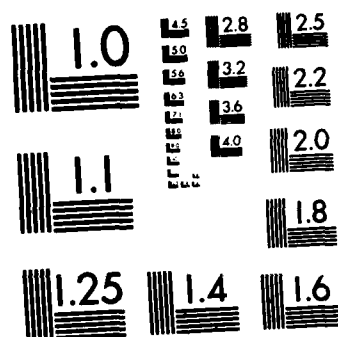
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

effect on behavioral intentions to search for alternative employment or the intention to remain in, or quit, an organization. Results indicated that the frequency with which an employee looks at advertising to see what kinds of job alternatives exist in his or her career field is directly correlated with both intent to search and intent to remain ($r = .21$, $p < .01$). Additionally, regression analyses indicated that information search produced an R^2 change as high as .06 ($p < .01$) for intent to remain while controlling for intent to search. The conclusion drawn is that as the frequency of looking at this advertising increases, so does the probability of a person forming the intention to quit the organization. This opens a new door for future research to further explore the predictive effects of availability of information on these behavioral intentions.

Another significant finding is that of the role played by intrinsic benefits. Results from the study indicate that perceptions of sense of accomplishment in the individual's current job in relation to their perceived sense of accomplishment elsewhere are a strong and significant predictor of intent to search.

These results suggest that all occupations should not be examined in the aggregate when formulating turnover process models. This is an especially important point for managers to consider and understand.

Recommendations for Action

Extrapolating the results of this study to the parent populations from which they were drawn may serve to help channel efforts aimed at improving the retention efforts of the Air Force.

First, the Air Force needs to continue their focus on the benefits associated with an Air Force career. Because our results showed a significant difference in the perceptions of how time invested affects a person's willingness to leave the service between occupational groups, the Air Force should continue to target retention efforts toward individuals with high civilian demand Air Force Specialty Codes. In this endeavor the Air Force should concentrate efforts in the areas of family encouragement to pursue an Air Force career and in overcoming the barrier of an individual's preconceived notion of what the appropriate time in years to leave the service may be.

Another area in which both the Air Force as an organization and individual managers can act to improve retention has to do with the idea of task redesign, or job enrichment. The Air Force could enhance an individual's perception regarding their sense of accomplishment through several channels. Hackman and Oldham (1980) presented five possible approaches to implementing job enrichment:

- 1) combining tasks;
- 2) forming natural work units;

3) establishing client relationships; 4) vertically loading the job; and 5) opening feedback channels. Combining tasks would allow a person to complete a given, identifiable piece of work. Task significance and task identity may be increased by grouping the items of work into logical and inherently meaningful categories by forming natural work units. Establishing client relationships allows individuals to establish a rapport with their professional peers, enabling job feedback, skill variety and autonomy. Also, a worker's autonomy may be increased by vertically loading the job. This narrows the gap between the doing and the controlling parts of the work. Finally, a manager can ensure that job feedback helps remove barriers which isolate employees from relevant work-related information (Hackman & Oldham, 1980, p. 137-138).

In summary, it is important for Air Force managers, or any organizational manager, to properly motivate their people as individuals with specific needs and personal career goals. It is therefore necessary for managers to recognize the complexity and significance that turnover models portray because there are multiple determinants of turnover and multiple strategies for dealing with individuals to control the tendency to quit.

Design Limitations

Inherent in any research effort exist limitations to method and design leading to less than conclusive results. First, our research lent itself to common method variance. This occurs when autocorrelation exists between the data, or there is covariance between the error terms. This problem will always exist whenever all the measures are derived from a common source. This could be alleviated by adding time as an independent variable to correct for common method variance.

Secondly, our results used intent to remain as a surrogate criterion for turnover, which is not the same as the actual turnover act. Inferences drawn from our results should consider this. Perhaps a follow-on study using the actual turnover act would lead to more conclusive results. Also, during the period in which this survey was administered, the focus of national news in relation to the economy was one of optimism. Interest rates were starting to fall, unemployment levels decreased marginally from record highs, and several of the economy's leading business indicators (business failures, inventory stock levels, housing starts) were showing improvements signaling a general upturn in the economy. Much attention was being devoted to the need to keep inflation under control while the verbal arguments over methods to reduce high unemploy-

ment rates raged on. This environment may have produced a sense of skepticism among survey respondents such that the job security of the Air Force was still preferable to searching for alternative jobs, given high unemployment and a marginal start of economic recovery.

Finally, we were using an exclusively Air Force sample to base our conclusions on. Therefore, our results may be unique to the Air Force environment without perfect extrapolation to the civilian community. The results must therefore be considered in light of where they were derived.

Recommendations for Further Research

Based on the preceding discussion and conclusions, the following recommendations for further research are made.

1. Develop alternative measures of variables in this study and use them to further test the model. This will enhance our knowledge regarding the model's validity and provide a measure of replication for the findings of this research.

2. Determine if there are any cost effective methods for increasing USAF member's sense of accomplishment in their jobs. If methods can be identified and implemented, perceptions of increased accomplishment in civilian jobs

should diminish along with intentions to search for alternative employment.

3. Investigate further the role that availability of advertising plays in forming intentions to search for alternative jobs and intent to remain in the organization.

4. Perform a longitudinal study on the same or similar population to test changes in model components as antecedents of employee separations.

5. Test predictiveness of model elements for actual attrition criteria, since intent to remain was only a surrogate measure.

APPENDIX A
DESCRIPTIVE STATISTICS

Descriptive Statistics for AFSC 27XX, 28XX

Variable	\bar{X}	SD	N
1. Age	3.36	2.13	322
2. Rank	0.80	0.87	322
3. Air Force Specialty Code	-	-	-
4. Tenure	3.20	2.09	321
5. Benefits Comparison	2.86	0.85	322
6. Ease of Movement	0.84	0.97	320
7. Intent to Remain	1.12	1.07	322
8. Current Demand	0.70	0.85	322
9. Competitiveness	0.58	0.75	320
10. Expected Offers	3.13	1.56	320
11. Time Invested	1.96	1.26	322
12. General Economic Conditions	1.05	0.82	321
13. Existing Offers	0.90	0.97	321
14. Normative Expectations	2.42	2.13	317
15. General Economic Conditions - Preferred Work Area	1.38	1.14	319
16. Regional Demand	1.20	0.97	319
17. Impulsiveness	2.55	0.60	320
18. Information Search	2.65	1.38	322
19. Internal Options	3.05	1.84	321
20. Encouragement	3.24	1.72	322
21. Association	4.54	1.46	322
22. Intent to Search	0.92	1.30	322

Descriptive Statistics for AFSC 51XX

Variable	\bar{X}	SD	N
1. Age	2.90	2.03	158
2. Rank	0.59	0.62	158
3. Air Force Specialty Code	-	-	-
4. Tenure	2.79	1.93	158
5. Benefits Comparison	2.83	0.86	156
6. Ease of Movement	0.56	0.80	157
7. Intent to Remain	1.08	1.07	158
8. Current Demand	0.17	0.40	158
9. Competitiveness	0.41	0.59	157
10. Expected Offers	3.47	1.65	158
11. Time Invested	2.09	1.25	158
12. General Economic Conditions	0.54	0.57	158
13. Existing Offers	1.05	1.30	157
14. Normative Expectations	2.68	2.21	158
15. General Economic Conditions - Preferred Work Area	0.94	1.91	158
16. Regional Demand	0.77	0.84	158
17. Impulsiveness	2.62	0.51	158
18. Information Search	2.81	1.52	158
19. Internal Options	3.11	1.97	158
20. Encouragement	3.68	1.72	158
21. Association	3.93	1.84	158
22. Intent to Search	0.77	1.27	158

Descriptive Statistics for AFSC 70XX

Variable	\bar{X}	SD	N
1. Age	3.48	1.79	99
2. Rank	0.49	0.66	99
3. Air Force Specialty Code	-	-	-
4. Tenure	3.23	2.10	99
5. Benefits Comparison	2.26	1.21	99
6. Ease of Movement	1.71	1.06	98
7. Intent to Remain	0.69	1.03	99
8. Current Demand	1.74	1.09	99
9. Competitiveness	0.76	0.87	99
10. Expected Offers	2.50	1.38	99
11. Time Invested	1.60	1.29	99
12. General Economic Conditions	1.66	0.97	99
13. Existing Offers	0.60	0.98	99
14. Normative Expectations	2.26	2.23	99
15. General Economic Conditions - Preferred Work Area	1.92	1.30	98
16. Regional Demand	1.78	1.05	99
17. Impulsiveness	2.59	0.60	99
18. Information Search	2.74	1.46	99
19. Internal Options	4.32	1.78	99
20. Encouragement	4.07	1.90	99
21. Association	2.76	1.93	99
22. Intent to Search	0.99	1.30	98

Descriptive Statistics for AFSC 73XX

Variable	\bar{X}	SD	N
1. Age	4.09	1.87	100
2. Rank	0.93	0.94	100
3. Air Force Specialty Code	-	-	-
4. Tenure	3.99	1.97	100
5. Benefits Comparison	2.32	1.22	100
6. Ease of Movement	1.68	1.07	100
7. Intent to Remain	0.79	1.02	100
8. Current Demand	1.69	1.02	100
9. Competitiveness	0.83	0.88	100
10. Expected Offers	2.28	1.27	100
11. Time Invested	1.48	1.26	100
12. General Economic Conditions	1.59	0.91	100
13. Existing Offers	0.51	0.82	100
14. Normative Expectations	2.75	2.23	99
15. General Economic Condition Preferred Work Area	1.98	1.24	100
16. Regional Demand	1.88	1.05	100
17. Impulsiveness	2.62	0.51	99
18. Information Search	2.40	1.55	100
19. Internal Options	4.34	1.64	100
20. Encouragement	3.98	1.85	99
21. Association	2.11	1.88	100
22. Intent to Search	0.94	1.40	100

APPENDIX B
CORRELATION MATRICES

Correlation Matrix for Air Force Specialty Code 27XX, 28XX

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Age																						
2. Rank	.67																					
3. Air Force Specialty Code	-	-																				
4. Tenure	.89	.73	-																			
5. Benefits Comparison	.12	.01	-	.14																		
6. Ease of Movement	-.17	-.10	-	-.22	-.31																	
7. Intent to Remain	-.43	-.35	-	-.44	.06	.05																
8. Current Demand	-.23	-.17	-	-.27	-.28	.55	.03															
9. Competitiveness	-.14	-.14	-	-.23	-.30	.64	.06	.50														
10. Expected Offers	.12	.05	-	.19	.32	-.50	-.04	-.46	-.49													
11. Time Invested	-.58	-.51	-	-.67	-.02	.10	.52	.13	.12	-.11												
12. General Economic Conditions	-.19	-.15	-	-.26	-.25	.51	.01	.56	.46	-.40	.12											

Correlation Matrix for Air Force Specialty Code 27XX, 28XX (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
13. Existing Offers	.07	.06	-	.09	.18	-.30	.14	-.22	-.27	.34	.00	-.20										
14. Normative Expectations	.21	.13	-	.21	-.04	.10	-.44	.04	-.06	.04	-.27	.03	-.19									
15. General Economic Conditions - Preferred Work Areas	-.10	-.15	-	.18	-.26	.32	-.00	.39	.34	.27	.03	.48	-.18	.01								
16. Regional Demand	-.11	-.13	-	.17	-.21	.55	-.07	.44	.45	-.42	.06	.43	-.19	.09	.51							
17. Impulsiveness	.08	.09	-	.11	.04	-.16	.07	-.20	-.16	.19	.01	-.14	.13	.01	-.07	-.16						
18. Information Search	.01	-.03	-	.02	.19	-.16	.22	-.17	-.12	.14	.00	-.06	.22	-.21	-.04	-.07	.08					
19. Internal Options	-.12	-.11	-	.13	-.10	.15	-.25	.17	.16	-.12	.02	.13	-.15	.16	.08	.15	-.09	-.20				
20. Encouragement	-.01	-.05	-	.01	-.21	.01	-.24	-.05	.00	-.05	-.03	.01	-.05	.15	.04	.01	.08	-.10	.26			
21. Association	.12	.06	-	.18	.15	-.16	-.02	-.11	-.18	.10	-.08	-.11	.12	.01	-.08	-.10	.05	.08	-.01	.04		
22. Intent to Search	-.06	-.19	-	-.10	.14	-.12	.52	-.09	-.14	.11	.26	-.05	.29	-.30	-.09	-.15	.09	.22	-.30	-.11	.06	

* $p < .05$
 ** $p < .01$

Correlation Matrix for Air Force Specialty Code 51XX

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Age																						
2. Rank	.86																					
3. Air Force Specialty Code	.61	.86																				
4. Tenure	.08	.08	.86																			
5. Benefits Comparison	.11	.17	.13	.14																		
6. Ease of Movement	.45	.28	.49	.02	.02																	
7. Intent to Remain	.07	.01	.10	.10	.46	.04																
8. Current Demand	.20	.21	.24	.07	.48	.16	.31															
9. Competitiveness	.25	.19	.29	.18	.47	.10	.35	.49														
10. Expected Offers	.67	.45	.70	.01	.08	.55	.07	.16	.19													
11. Time Invested	.24	.16	.23	.06	.24	.15	.22	.26	.28	.19												
12. General Economic Conditions																						

Correlation Matrix for Air Force Specialty Code 5LXX (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
13. Existing Officers	.03	-.01	-	-.03	.14	-.29	.10	-.19	-.35	.32	.08	-.18										
14. Normative Expectations	.24	.17	-	.17	-.18	.01	-.44	-.06	-.05	.03	-.19	-.04	.02									
15. General Economic Conditions - Preferred Work Areas	-.02	.08	-	.00	-.00	.23	-.11	.20	.23	-.19	-.05	.41	-.23	.01								
16. Regional Demand	-.06	-.03	-	-.04	-.17	.54	-.03	.31	.43	-.36	-.00	.34	-.26	.10	.39							
17. Impulsiveness	-.06	.01	-	-.01	.05	-.10	.01	-.10	-.20	.20	.01	-.09	.18	-.07	-.16	-.11						
18. Information Search	.11	.09	-	.15	.18	-.24	.11	-.20	-.17	.24	-.07	-.06	.30	-.08	-.16	-.11	.19					
19. Internal Options	.03	.01	-	.05	-.04	.19	-.29	.02	.19	-.08	-.09	.09	-.22	.28	.19	.15	-.06	-.05				
20. Encouragement	-.09	-.13	-	-.09	-.20	.00	-.13	-.03	.06	-.01	.01	.03	-.01	.20	-.02	.03	.15	.07	.27			
21. Association	.17	.19	-	.10	.03	-.23	-.09	-.10	-.18	.17	-.05	-.05	.21	.14	-.09	-.24	-.01	.05	.06	.04		
22. Intent to Search	-.11	-.12	-	-.13	.05	-.12	.52	-.04	.02	-.04	.29	.05	.28	-.24	-.13	-.00	-.01	.20	-.19	-.07	.04	

* $p < .05$
 ** $p < .01$

Correlation Matrix for Air Force Specialty Code 70XX

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Age																						
2. Rank	.40																					
3. Air Force Specialty Code																						
4. Tenure	.75	.44																				
5. Benefits Comparison	.19	.22		.23																		
6. Ease of Movement	-.12	-.07		-.05	-.15																	
7. Intent to Remain	-.11	-.13		.30	-.12	-.05																
8. Current Demand	-.22	-.12		-.15	-.17	.41	-.21															
9. Competitiveness	-.12	.06		-.09	-.04	.57	-.01	.39														
10. Expected Offers	.26	.11		.09	.27	.43	.09	-.40	-.41													
11. Time Invested	-.46	-.26		-.59	-.03	-.16	.44	.02	-.04	.06												
12. General Economic Conditions	-.16	-.10		-.11	-.14	.34	-.13	.62	.43	-.40	.04											

Correlation Matrix for Air Force Specialty Code 70XX (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
13. Existing Offers	.07	.03	-	-.14	.24	-.30	.24	-.37	-.14	.34	.23	-.35										
14. Normative Expectations	.11	.13	-	.20	.03	.01	-.33	-.17	-.17	.03	-.21	-.20	-.17									
15. General Economic Conditions - Preferred Work Areas	-.10	-.06	-	.04	-.10	.36	-.15	.47	.40	.44	-.10	.64	-.31	-.09								
16. Regional Demand	-.13	-.03	-	-.09	-.12	.65	-.09	.48	.54	-.52	-.10	.45	-.36	-.21	.60							
17. Impulsiveness	-.00	.13	-	.12	.10	-.12	-.14	-.14	-.09	.17	-.12	-.00	.11	.19	-.10	-.03						
18. Information Search	.02	.15	-	-.01	.13	-.30	.22	-.28	-.21	.26	.11	-.26	.38	-.15	-.36	-.31	.18					
19. Internal Options	-.01	-.04	-	.03	-.16	.12	-.47	.16	-.04	-.08	-.11	.09	-.24	.40	.06	.03	.14	-.17				
20. Encouragement	.09	-.05	-	.07	-.08	.08	-.19	-.11	-.03	-.02	.00	-.10	-.14	.26	-.06	-.02	-.01	-.10	.43			
21. Association	.06	.16	-	.01	-.20	-.21	.03	-.21	-.22	.13	-.01	-.25	.30	.11	-.12	-.22	-.07	.18	.05	-.09		
22. Intent to Search	.01	.02	-	-.08	.19	-.06	.63	-.08	-.02	.07	.31	-.05	.25	-.20	-.04	-.07	-.08	.18	-.31	-.13	-.01	

* $p < .05$

** $p < .01$

Correlation Matrix for Air Force Specialty Code 73XX

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Age																						
2. Rank	.46**																					
3. Air Force Specialty Code																						
4. Tenure	.86**	.48**																				
5. Benefits Comparison	.19	.21		.24																		
6. Ease of Movement	.04	.10		.03	-.22*																	
7. Intent to Remain	-.39**	-.19		-.46**	.07	-.08																
8. Current Demand	.11	.05		.03	-.15	.42**	-.01															
9. Competitiveness	-.03	-.05		-.08	-.33**	.51**	.05	.50**														
10. Expected Offers	-.01	-.00		.06	.22	-.39**	-.07	-.44**	.42**													
11. Time Invested	-.67**	-.30		-.77**	-.14	-.03	.57**	-.13	.01	-.02												
12. General Economic Conditions	.13	.10		.17	-.03	.32**	-.06	.48**	.42**	-.28**	-.27**											

Correlation Matrix for Air Force Specialty Code 73XX (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
13. Existing Offers		-.11	-.03	-	-.08	.34	-.47	.23	-.33	-.33	.34	.09	-.31									
14. Normative Expectations	.17	.07	-	.25	.09	-.06	-.36	.15	-.01	-.20	-.29	.13	.05									
15. General Economic Conditions - Preferred Work Areas	.04	-.04	-	.03	-.06	.30	-.04	.26	.38	-.16	-.10	.49	-.13	.12								
16. Regional Demand	.08	-.01	-	.08	-.14	.66	.01	.52	.53	-.43	-.11	.41	-.39	-.09	.37							
17. Impulsiveness	-.07	-.10	-	-.08	.01	.09	.02	-.20	-.22	-.03	.04	-.02	.05	-.03	-.09	-.04						
18. Information Search	-.13	-.03	-	-.09	.17	-.19	.35	-.11	-.14	.01	.27	-.10	.31	-.03	-.03	-.04	.15					
19. Internal Options	.10	-.06	-	.09	-.17	.10	-.50	.10	-.01	.01	-.30	.07	-.19	.1	-.13	-.02	.15	-.24				
20. Encouragement	.16	-.05	-	.07	-.17	.08	-.44	.07	-.07	-.00	-.27	.04	-.19	.08	.02	-.07	.04	-.31	.42			
21. Association	.00	.00	-	-.04	-.05	-.12	-.04	-.03	-.14	-.00	-.00	-.12	.05	.10	-.07	-.05	.02	.19	.02	-.02		
22. Intent to Search	-.17	-.13	-	-.23	.04	-.11	.51	.06	.02	-.02	.40	.08	.27	-.29	-.09	.01	.12	.23	-.27	-.30	-.03	

* $p < .05$
 ** $p < .01$

APPENDIX C
QUESTIONNAIRE

001. What was your age on your last birthday?
 1. Less than 25 3. 27-28 5. 31-32 7. Over 34
 2. 25-26 4. 29-30 6. 33-34
002. What is your current rank?
 1. 1st or 2d Lt 2. Captain 3. Major 4. Lieutenant Colonel 5. Other
003. What is your duty AFSC?
 1. 27XX, 28XX 2. 51XX 3. 70XX 4. 73XX 5. Other
004. Answer this question only if your response to question # 003 was 27XX or 28XX.
 Is your undergraduate degree in engineering?
 1. Yes 2. No
005. Answer this question only if your response to question # 003 was 51XX. Is your undergraduate degree in computer science?
 1. Yes 2. No
006. How much time have you spent on active duty in the military?
 1. Less than two years 5. Over eight but less than ten years
 2. Over two but less than four years 6. Over ten but less than twelve years
 3. Over four but less than six years 7. Over twelve years
 4. Over six but less than eight years
007. How do you think the total package of military pay, allowances, and benefits compares with pay and benefits for civilian employment for similar work?
 1. Military compensation and benefits far exceed that of civilian employment.
 2. Military compensation and benefits slightly exceed that of civilian employment.
 3. Military compensation and benefits are about equal to that of civilian employment.
 4. Civilian compensation and benefits slightly exceed that of military compensation and benefits.
 5. Civilian compensation and benefits far exceed that of military compensation.
008. If you left the Air Force tomorrow, how easy would it be for you to get another job?
 1. Very easy 3. Neither easy nor difficult 5. Very difficult
 2. Somewhat easy 4. Somewhat difficult
009. Which of the following best tells how you feel about a career in the Air Force?
 1. I definitely intend to remain with the Air Force.
 2. I probably will remain with the Air Force.
 3. I have not decided whether I will remain with the Air Force.
 4. I probably will not remain with the Air Force.
 5. I definitely intend to separate from the Air Force.
010. Compared to other career fields, what do you feel is the current demand for your occupation in civilian employment?
 1. Very good demand 3. Average demand 5. Very poor demand
 2. Good demand 4. Poor demand 6. No demand
011. How competitive do you feel you would be on the open job market? Evaluate your qualifications as they would compare with those of other candidates competing for civilian jobs in your field.
 1. I would be highly competitive.
 2. I would be moderately competitive.
 3. I would be somewhat competitive.
 4. I would be at a competitive disadvantage.
 5. I would be at a severe competitive disadvantage.
012. If you were to enter the civilian job market, how many organizations do you believe you would receive job offers from?
 1. None 3. Three or four 5. Seven or eight 7. Over ten
 2. One or two 4. Five or six 6. Nine or ten
013. Do you feel your sense of accomplishment would be higher in civilian employment?
 1. Yes 2. No
014. Which of the following would best describe your willingness to leave the Air Force for civilian employment given the number of years you have already invested?
 1. I have invested too much time in the Air Force at this point in my career to leave before I'm eligible to retire.
 2. The time I have invested in the Air Force is substantial and it would be a very difficult decision to leave.
 3. I am undecided, I don't know.
 4. The time I have invested in the Air Force would have little significance in my decision to leave.
 5. The time I have invested in the Air Force would make no difference at all in my decision to leave.

015. What is your impression of the impact of today's general economic conditions in relation to job hunting for your career specialty?
1. Occupational demand for my specialty is insensitive to economic conditions. There will be numerous opportunities for the job I want despite the economy.
 2. Occupational demand for my specialty is somewhat sensitive to economic conditions. Job opportunities would not be plentiful, but I could still find the job I wanted in unfavorable economic conditions.
 3. I don't know what job hunting would be like in unfavorable economic conditions.
 4. Occupational demand for my specialty is sensitive to economic conditions. It would be difficult for me to find the job I wanted in unfavorable economic conditions.
 5. Occupational demand for my specialty is very sensitive to economic conditions. I doubt I could find the job I wanted in unfavorable economic conditions.
016. Within the past year, how many job offers or "feelers" (i.e., possible job opportunities) in the civilian job market have you had?
1. None
 2. One or two
 3. Three or four
 4. Five or six
 5. Seven or eight
 6. Nine or ten
 7. Over ten
017. What do you consider to be the optimal time (in years) to leave the service?
1. Immediately after your initial commitment
 2. Between four and eight years
 3. Between eight and twelve years
 4. Between twelve and sixteen years
 5. Between sixteen and twenty years
 6. Between twenty and twenty-five years
 7. Over twenty-five years
018. For your preferred geographic work location, what is your impression of the effect of an unfavorable local economy in relation to job hunting for your occupation?
1. Unfavorable economic conditions would not restrict my job opportunities.
 2. Unfavorable economic conditions would moderately restrict my job opportunities.
 3. Unfavorable economic conditions would somewhat restrict my job opportunities.
 4. Unfavorable economic conditions would slightly restrict my job opportunities.
 5. Unfavorable economic conditions would definitely restrict my job opportunities.
019. How easy would it be for you to get a job in a location where you would prefer to work?
1. Very easy
 2. Somewhat easy
 3. Neither easy nor difficult
 4. Somewhat difficult
 5. Very difficult
020. When it comes to making important decisions, are you likely to be:
1. Highly impulsive in deciding to do what "strikes your fancy"
 2. Somewhat impulsive in deciding to do what "strikes your fancy"
 3. Somewhat knowledgeable of alternatives before deciding
 4. Highly knowledgeable of alternatives before deciding
021. How often would you say that you look at advertising in trade or professional journals, magazines, newspapers, etc., to see what kind of job alternatives exist in your field within the civilian job market?
1. Never
 2. Almost never
 3. Often
 4. Not very often
 5. Very often
 6. Almost always
 7. Always

For questions 022, 023, 024, use the following scale to indicate how much you agree or disagree with each statement. Mark:

- | | |
|---------------------------------------|---------------------------|
| 1 - if you strongly disagree | 5 - if you slightly agree |
| 2 - if you disagree | 6 - if you agree |
| 3 - if you slightly disagree | 7 - if you strongly agree |
| 4 - if you neither agree nor disagree | |

022. Opportunities such as cross-training into another AFSC or short-term career-broadening assignments are better alternatives than leaving the Air Force.
023. Family and/or friends openly encourage me to pursue a career in the Air Force.
024. Associations and working relationships with contractors contribute to my awareness of civilian job opportunities.
025. Do you intend to look for civilian employment during the coming year?
1. Very unlikely
 2. Somewhat unlikely
 3. Don't know
 4. Somewhat likely
 5. Very likely

THANK YOU FOR YOUR ASSISTANCE.

BIBLIOGRAPHY

- Bluedorn, A. C. Structure, environment, and satisfaction: Toward a causal model of turnover from military organizations. Journal of Political and Military Sociology, 1979, 2, 181-207.
- Bluedorn, A. C. A taxonomy of turnover. Academy of Management Review, 1978, 3, 647-655.
- Bowen, D. E. Some unintended consequences of intention to quit. Academy of Management Review, 1982, 7, 205-211.
- Carey, M. L. Occupational employment growth through 1990. Monthly Labor Review, 1981, 8, 42-49.
- Dalton, D. R. Turnover and absenteeism: Measures of personnel effectiveness. In R. S. Schuler, J. M. McFillare, & D. R. Dalton (Eds.), Applied readings in personnel and human resource management. St. Paul MN: West Publishing Company, 1981, 20-38.
- Dalton, D. R., & J. L. Perry. Absenteeism and the collective bargaining agreement: An empirical test. Academy of Management Journal, 1981, 24, 425-431.
- Dalton, D. R., & W. D. Todor. Turnover: A lucrative hard dollar phenomenon. Academy of Management Review, 1982, 7, 212-218.
- Dalton, D. R., W. D. Todor, & D. M. Drackhardt. Turnover overstated: The functional taxonomy. Academy of Management Review, 1982, 7, 117-123.
- Fishbein, M. Attitudes and the prediction of behavior. In M. Fishbein (Ed.), Readings in Attitude Theory and Measurement. New York: Wiley, 1967, 477-492.
- Gustafson, H. W. Force-Loss Cost Analysis. In W. H. Mobley, Employee turnover: Causes, consequences, and control. Reading MA: Addison-Wesley Publishing Co., Inc., 1982, 139-185.
- Hackman, J. R., & G. R. Oldham. Work redesign. Reading MA: Addison-Wesley Publishing Co., 1980.
- Jackofsky, E. F., & L. H. Peters. The hypothesized effect of ability in the turnover process, Academy of Management Review, 1983, 8, 46-49.

- Koch, J., & R. M. Steers. Job attachment, satisfaction, and turnover among public sector employees. Journal of Vocational Behavior, 1978, 12, 119-128.
- Kraut, A. I. Predicting turnover of employees from measured job attitudes. Organizational Behavior and Human Performance, 1975, 13, 223-243.
- Lack of engineers only the top of the iceberg. Air Force Times, June 1, 1981, p. 2.
- March, J. G., & H. A. Simon. Organizations. New York: Wiley, 1958.
- Martin, T. N., J. L. Price, & C. W. Mueller. Job performance and turnover. Journal of Applied Psychology, 1981, 66, 116-119.
- Miller, H. E., R. Katerberg, & C. L. Hulin. Evaluation of the Mobley, Horner, and Hollingsworth model of employee turnover. Journal of Applied Psychology, 1979, 64, 509-517.
- Mirvis, P. H., & E. E. Lawler, III. Measuring the final impact of employee attitudes. Journal of Applied Psychology, 1977, 62, 1-8.
- Mobley, W. H. Intermediate linkages in the relationship between job satisfaction and employee turnover. Journal of Applied Psychology, 1977, 62, 237-240.
- Mobley, W. H. Employee turnover: Causes, consequences, and control. Reading MA: Addison-Wesley Publishing Company, Inc., 1982.
- Mobley, W. H. Some unanswered questions in turnover and withdrawal research. Academy of Management Review, 1982, 7, 111-116.
- Mobley, W. H., S. O. Horner, & A. T. Hollingsworth. An evaluation of precursors for hospital employee turnover. Journal of Applied Psychology, 1978, 63, 08-414.
- Mobley, W. H., R. W. Griffeth, H. H. Hand, & B. M. Meglino. Review and conceptual analysis of the employee turnover process. Psychological Bulletin, 1979, 86, 493-522.
- Mowday, R. T., L. W. Porter, & R. M. Steers. The psychology of commitment, absenteeism, and turnover. New York: Academic Press, 1982, 107-132.

- Muchinsky, P. M., & M. L. Tuttle. Employee turnover: An empirical and methodological assessment. Journal of Vocational Behavior, 1979, 14, 43-77.
- Pettman, D. B. Some factors influencing labour turnover: A review of the literature. Industrial Relations Journal, 1973, 43-61.
- Polk, Major Stan, USAF, Chief, Retention Studies and Reports Division, MPCHS, Address to AFIT students, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, 6 October 1982.
- Porter, L. W., & R. M. Steers. Organizational, work, and personal factors in employee turnover and absenteeism. Psychological Bulletin, 1973, 80, 151-176.
- Porter, L. W., R. M. Steers, R. T. Mowday, & P. V. Boulian. Organizational commitment, job satisfaction, and turnover among psychiatric technicians. Journal of Applied Psychology, 1974, 59, 603-609.
- Porter, L. W., W. J. Crampon, & F. J. Smith. Organizational commitment and managerial turnover: A longitudinal study. Organizational Behavior and Human Performance, 1976, 15, 87-98.
- Price, J. L. The study of turnover Ames IO: The Iowa State University Press, 1977.
- Price, J. L., & C. W. Mueller. The effects of turnover on the organization. Organizational and Administrative Sciences, 1976, 7, 61-88.
- Reagan, Ronald, 40th President of the United States. State of the Union Address to the Joint Session of Congress, 25 January 1983.
- Roseman, E. Managing employee turnover. New York: AMACOM, 1981, 4-10.
- Staw, B. M. The consequences of turnover. Journal of Occupational Behavior, 1980, 1, 253-273.
- Staw, B. M., & G. R. Oldham. Reconsidering our dependent variables. A critique and empirical study. Academy of Management Journal, 1978, 21, 539-559.
- Steel, R. P., & N. K. Ovalle. A review and meta-analysis of the relationship between behavioral intentions and employee turnover, 1983, Unpublished manuscript.

Steel, R. P., & N. K. Ovalle. A review and meta-analysis of the relationship between behavioral intentions and employee turnover, 1983, Unpublished manuscript.

Steers, R. M. Antecedents and outcomes of organizational commitment. Administrative Science Quarterly, 1977, 22, 46-56.

Steers, R. M., & R. T. Mowday. Employee turnover and post-decision accommodation processes. In L. L. Cummings & B. M. Staw (Eds.), Research in Organizational Behavior. Greenwich CT: JAI Press, 1981, 3, 235-282.

Steers, R. M., & S. R. Rhodes. Major Influences on employee attendance: A process model. Journal of Applied Psychology, 1978, 63, 391-407.

The retention nightmare: Services struggling to keep skilled specialists. Air Force Times, January 5, 1981, p. 4.

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